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USSR Report

ECONOMIC AFFAIRS

(FOUO 13/79)

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CONTENTS PAGE

OVERALL IMPROVEMENT OF PLANNING, MANAGEMENT ADVOCATED

Moscow VOPROSY EKONOMIKI in Russian No 9, Sep 79 pp 3-13

[Article: "An Overall Improvement of Planning and of the Management Mechanism"]

[Text] Our country has achieved great successes in economic and social development and in improving the public welfare. These successes are the result of the scientifically substantiated economic policy of our party. A further improvement of the management of the economy is taking on especial importance at the current stage of developed socialism. Increasingly great demands are being made upon management by the increased dimensions of production, more intricate economic relations, and the modern scientific and technological revolution.

The decisions of the 25th CPSU Congress, the USSR Constitution, and the ideas on the ways of further improving the management of the economy of developed socialism which are set forth in the works of L. I. Brezhnev have found an overall embodiment in the system of measures provided for in the decree of the CC CPSU on a further improvement of the managerial mechanism and on the tasks of party and state agencies and in the decree of the CC CPSU and USSR Council of Ministers on improving planning and strengthening the influence of the managerial mechanism on increasing production efficiency and improving the quality of work. An improvement of planning work and a simultaneous development of democratic principles in economic management and of the creative initiative of labor collectives occupies a central place in them.

The decrees proceed from the necessity for directing our entire managerial and planning work toward increasing production efficiency and improving work quality, achieving high final economic results, and bringing about a fuller satisfaction of our growing social and personal needs. It is important to ensure the efficient use of everything which our economy possesses, to base ourselves chiefly on intensive growth factors, and to bring about a wider introduction into production of scientific and technical achievements and advanced experience.

Paramount importance is attributed to a further increase in the role of state and, above all, five-year plans as an important instrument of realizing the party's economic policy and to ensuring the balanced nature of plans and their greater orientation toward the accomplishment of social tasks. The concentration of resources for the fulfillment of state special-purpose programs has to be intensified, and the system of planning indicators improved so that they thoroughly motivate labor collectives to increase labor productivity, make maximum use of fixed capital, and economize material resources. The solution of current and long-term problems has to be more closely coordinated. There is the task of combining branch and territorial planning with a view toward ensuring the comprehensive development of union republics, economic regions, large cities, and territorial production complexes. Fuller account has to be taken of the interests of consumers when production assignments are formed. Of especial importance here is an overall approach to the solution of economic, social, scientific and technical, and ecological problems and a strengthening of the role of the social aspect of plans. It is also necessary to substantially strengthen the effectiveness of economic levers and stimuli and to make material incentives directly dependent upon the intensity of planning assignments and the results of production work.

The regulations on the creation of an intercoordinated system of long-term and current plans occupy a special place in the complex of measures. The five-year plan which is developed as a part of it becomes the chief form of planning. Primary importance is given to the indicators of normed net output, to the normed planning of wages, the distribution of profits, the formation of economic stimulation funds, and the establishment of ceilings on the number of workers and on capital investments and of social development indicators and norms. The role of final qualitative indicators and of assignments connected with more fully satisfying the needs of the economy and the population is strengthened in the system of approved indicators. The system of indicators is established for the five-year and for the annual plans (and not only for the annual one). It is addressed not only to enterprises, but also to higher managerial elements -- to associations and ministries.

The establishment of indicators and economic norms which are stable through the years of the five-year plan acquires decisive importance. The indicators of the annual plans are worked out not for special assignments, but on the basis of the indicators of the five-year plan for the corresponding year. Volume indicators are replaced (where this is possible and expedient) by norms and ceilings, while physical indicators in weight and other gross measurers are replaced by indicators which characterize quality and consumer use properties. In addition, account is taken of the special characteristics of branches of productions. The indicator of new equipment efficiency is introduced as an approved one. A single science and technology development fund is created.

The entire system of evaluating work results and of stimulation is reoriented toward final production indicators -- the fulfillment of output deliveries in accordance with contracts, an increase in labor productivity, an increase in profits, and an increase in the production of highest quality category output. In capital construction the corresponding indicators are: the fulfillment of assignments for commissioning production capacities and objects, for commodity construction output, and for an increase in labor productivity and profits.

The following concrete schedules and the following procedure for developing a system of intercoordinated long-term and current plans are established. This sytem consists, first of all, of an overall program for scientific and technological progress for 20 years (by five-year plans). The development of this program until the year 2000 is being completed by the USSR Academy of Sciences, the State Committee for Science and Technology, and Gosstroy USSR. It consists, secondly, of a plan for the basic directions of the economic and social development of the USSR for ten years (by five-year periods). Active development work on basic directions until the year 1990 is being performed in Gosplan USSR and in the ministries and the departments. It consists, thirdly, of draft five-year plans for the economic and social development of the USSR with a distribution of assignments by years. Work on making up the five-year plan for 1981-1985 is being performed in Gosplan USSR, in the ministries and the departments, and in scientific organizations. And, fourthly, it consists of annual plans in which the assignments of the five-year plan for a given year are concretized.

The first two components of the system -- the overall program for scientific and technological progress and the basic directions of the economic and social development of the USSR -- are continuous planning forms. Every five years they are amended by the necessary refinements of the most important parameters for the new five-year period which are worked out with regard to the changing conditions and factors of economic growth.

The two other elements of the system -- the five-year and annual plans -- have to ensure the necessary stability for the directive planning assignments with respect to observing the proportions which are in them, achieving the necessary balance in economic development, and creating conditions for the effective use of cost accounting and economic levers and stimuli.

The combination of planning continuity (which reflects the dynamic nature of processes under the conditions of the scientific and technologic revolution) and of the stability of plans, indicators and economic norms makes it possible in performing managerial work on the basis of the five-year plan to take account of development prospects and, at the

same time, to strengthen the overall influence of the plan and of economic levers and stimuli on the achievement of high final results in the work of associations, enterprises, and organizations.

It is planned to compose the basic directions for the economic and social development of the USSR for a ten-year period in line with the tasks which are determined by the party for the long term and on the basis of the calculations and forecasts of the overall program. In their turn, the basic directions for economic and social development become the base for determining the system of control figures for the basic economic indicators and norms and for the development of the programs and drafts of the next five-year plan.

The reorganization of planning and management on the basis of the stable indicators and norms which are stipulated in the five-year plans as the chief form of the planned management of the economy and of the realization of the party's economic policy at the current stage greatly increases the possibilities for managing the complex processes of reproduction, for developing and introducing new equipment and technology, and for achieving a combination of economic and cost accounting criteria in evaluating the work of ministries, associations, enterprises, and organizations. The decree provides for the realization of a system of measures aimed at a further development and improvement of the methods of organizing five-year planning. This applies above all to the system of balances for material, labor, and financial resources and balances of production capacities and monetary income and expenditures which will now be worked out for the long term and for the years of the five-year plan, and not only in the annual plans as was done in the past.

In order to raise the level of the substantiation of five-year plans great importance is being attributed to strengthening the role of control figures and of the system of scientifically substantiated technical and economic norms and normatives for types of work and labor expenditures, raw materials, materials, and fuel and energy resources and of norms for the use of production capacities (with a view toward increasing the shift coefficient of equipment) and of specific capital investments.

The stability of the five-year plans on the basis of improving the quality of their development will be fostered by stability during the course of a five-year plan of wholesale prices and by the formation of material and financial reserves (and, in necessary cases, of production capacities) in accordance with approved norms. This will also be fostered by the economic norms which are approved for the years of the five-year plan for the wage fund per ruble of output, for the economic incentive funds, the distribution of profits, and others.

For the first time the task is being set of evaluating the fulfillment of the five-year plan at all levels in a running total from the beginning of the five-year period, and of an annual plan in a running total from the beginning of the year. This not only increases the demands upon the quality of the development work on the five-year plans, but also eliminates the practice of planning from an achieved base. The role of labor collectives in developing the annual plans is greatly strengthened. First of all, the annual plan is developed by them on the basis of the assignments and economic norms of the five-year plan for the given year with their necessary concretization and the working out of measures which ensure the fulfillment of the five-year plan.

Secondly, the annual plan based on the assignments of the five-year plan and of contracts which are concluded with output consumers is made up from below; that is, by production associations (enterprises) and organizations with regard to reserves and possibilities which are revealed by socialist competition, counter-planning, the development of inventing and rationalizing, and other directions of the creative activities of the masses. The fuller satisfaction of the needs of clients (consumers) in accordance with contracts which have been concluded for the delivery of output in a concrete products list (assortment) becomes the chief criterion of the quality of the annual plans.

In the development of the five-year and annual plans provision is made for the extensive use of economic and engineering calculations and of the data of the special documents of associations and enterprises which take account of the existence and level of the use of production capacities, including the shift coefficient of equipment, the organization and technical level and the level of the specialization of production, and other technical and economic indicators which are necessary for composing economically substantiated intense plans. This kind of document will become an objective criterion in evaluating the production possibilities of an enterprise. It is planned to have these documents made up during the course of 1979-1980.

Under the new conditions the volume of sold output indicator is established only in the annual plans and is approved by ministries, departments, associations, and enterprises (in agreement with Gosplan USSR) for the purpose of evaluating the fulfillment of output delivery assignments in accordance with contracts and schedule orders for export output. In this way this indicator characterizes the final work result of an association (enterprise) and its fulfillment of commitments to a consumer to deliver concrete products on time and with quality parameters which satisfy clients. The physical amount and structure of output control the dynamics of the value amount of output. When work results and economic stimulation are evaluated the failure to fulfill deliveries

in a products list (assortment) means, in its turn, the failure to fulfill the output sales plan and a corresponding decrease in the monies of the incentives funds. Thus, the negative influence of the value volume indicator on the work of an enterprise is weakened, since now it will not be possible to "make money" on the production of more profitable or more expensive output. This will also be helped by the new procedure for approving the list of mandatory products for the establishment of direct economic relations and the conclusion of output delivery contracts.

Measures are planned to improve physical measurements in metallurgy, machine building, and other branches on the basis of the wide use of modern methods of determining efficiency, productivity, quality, and other use properties of machines, equipment, and other output. It is intended to plan the production of equipment in an expanded products list. Indicators in tons will be employed in necessary cases as estimated ones.

The system of indicators which are approved for the years of the five-year plan has a number of characteristics. An assignment for an increase in normed net ouput is established for the production of output in value terms. This indicator will become the chief one as the appropriate preparations are made in the branches. Commodity output and comparable prices is approved for individual branches in which the shift to net output is inexpedient for a number of objective reasons. Indicators for an increase in the production of highest quality category output over other quality indicators are also planned in this section.

The labor indicators and norms which are approved are supplemented by social development indicators and norms at all levels -- from the ministry to the enterprise. Among the approved ones are: an increase in labor productivity for net output (normed) or for another indicator which more precisely reflects changes in labor expenditures in the individual branches, wage norms per ruble of output, assignments for a decrease in the use of manual labor, and norms for the formation of incentives funds.

Given the present demographic situation it has been found advisable to establish a ceiling on the number of workers and employees in order to achieve a more planned distribution and use of labor resources.

A new approach is characteristic for financial indicators. Gradually, as they become ready, ministries and associations will have established for them an overall norm for the distribution of profits, payments to the state budget and appropriations from the budget by years of the five-year plan. Such ministries bear full responsibility for the fulfillment of the plan for payments from profits to the budget. When

these assignments are not fulfilled there is a decrease in the share of profits which remains at their disposal in keeping with their established distribution. A system of profits distribution in five-year plans is already being employed in a number of ministries and is producing positive results. In a number of branches, in view of their concrete conditions, instead of profits assignments, it is planned to approve an output cost decrease indicator.

For capital construction there is an increased role for the indicator of the commissioning of fixed capital and production capacities and objects which is planned for clients and which is specified along with the indicators that are established for construction and installation organizations of the commissioning of production capacities and objects and of the amount of commodity construction output. Especial importance is attributed to the approval of a ceiling on state capital investments and construction and installation work (including for the reequipping and reconstruction of operating enterprises) which is stable for five years and is not subject to reapproval in the annual plans. It is introduced in place of the total capital investments indicator. The amount of capital investments was used as an evaluative indicator which frequently led to an irrational use of resources for the sake of fulfilling planned amounts of capital investments regardless of the extent to which fixed capital, capacities, and objects were commissioned. The ceiling is a resource indicator which characterizes the maximum amount of capital investments expenditures for the planned commissioning of finished enterprises, capacities, and objects and for the creation of normed stocks. The chief criterion here is an economy of resources with respect to a performed amount of work.

With regard to the introduction of new equipment the most important indicators become the assignments for the fulfillment of scientific and technological programs, for the technical level of production, and for the most important types of output and the economic effect of carrying out the corresponding measures. The indicators of economic effect from the development, mastery, and introduction (use) of new equipment and other measures of scientific and technological progress are being employed for the first time as approved indicators. These indicators characterize the effect (an economy of current and one-time expenditures for the producers and consumers of new equipment) which is obtained in the economy and, thereby, act as the economic criterion of the effectiveness of the introduction of new equipment.

An organic connection between the national economic and the cost accounting criteria of effectiveness is achieved by means of reflecting the national economic effect which is calculated for adduced expenditures in prices and in a decrease in the norms and normatives for the expenditure of resources per unit of output and by means of reflecting these

and for the specialization and concentration of production (within the plans for raising the technical level of branches).

The first group of programs realizes the results of basic and the most important applied research which is connected with the development and production of new types of raw materials, materials, and output and with the introduction of progressive technology. The second brings this process to the creation of the necessary production potential and to fully supplying branches of the economy with new equipment and technology and machinery systems; that is, ensures the rise in the technical level of production and of the output being produced and an increase in the efficiency of social labor.

Measures are envisaged which ensure the planning and construction of new and the reconstruction of operating enterprises on the basis of highly efficient production technology and the use of the latest equipment and which promote the production at newly commissioned capacities of output which in its technical level and quality corresponds to the best foreign and domestic models or surpasses them.

In order to shorten the planning and construction cycles for large new enterprises and to prevent the rapid aging of capacities which are being created it is planned to expand the experience of combining the planning period with the period of the construction and commissioning of start-up complexes and objects. The evaluation performed in 1979-1980 of the technical level of the machinery, equipment, and other production purpose equipment being produced as a basis for planning a rise in the technical and economic indicators of products which are being produced and newly mastered and for removing obsolete types of output from production will become an important measure. It is planned to give a systematic character to this kind of evaluation.

A number of measures are aimed at a further development of state output quality certification, the development of overall standardization programs for technical purpose output and consumer goods, including basic raw materials, materials, and component products, and also at a systematic review of obsolete standards. All of this is making it possible to carry out the overall management of output quality even more consistently.

The task of improving the balanced nature of plans was set at the 25th CPSU Congress. The development of a system of five-year balances and the creation of reserves of resources are very important conditions for its successful accomplishment. With this in view, the decree provides for the composition of material balances (for an enlarged products list) and of plans for the distribution of output to basic allocation holders for the years of the five-year plan. An improvement of balance and the

factors in cost accounting indicators. The methodological principles for such an approach to the indicators of scientific and technological progress are already being developed. There also already exists practical experience in planning them and controlling their fulfillment for the years of the five-year plan (for example, in the ministries of electrical engineering industry, agricultural machine building, and others).

In accordance with the decrees, the amount of deliveries of the basic types of material and technical resources necessary for the fulfillment of a plan will be determined with a view toward the concretization and enlargement of the products list for the production of output by years. In this section assignments for an average decrease in the expenditure norms for the most important types of material resources are established in the annual plans.

For industrial ministries assignments are made more exact in the annual plans for the production of output in physical terms (for a wider products list than in the five-year plan), for the commissioning of fixed capital, production capacities and objects, for payments to the state budget, and for appropriations from the state budget. Individual indicators and norms are approved by USSR industrial ministries in agreement with Gossplan USSR, and by republic ministries in agreement with the Gossplans of the union republics or independently, on the basis of the assignments or norms of the five-year plan for the corresponding year.

With respect to the solution of social problems it is planned to work out within the state plans for the economic and social development of the country, union and autonomous republics, krays, oblasts, cities, rayons, and also ministries, departments, associations, and enterprises a summary section for the entire complex of measures in the field of social development, including an improvement of working conditions, an increase in the qualifications and vocational skills of workers, a rise in the general educational and cultural level of the population, an improvement in housing and cultural and domestic conditions, and of medical services, and other measures in coordination with the development of production and an increase in its efficiency.

In addition to an improvement of the indicators in the complex of measures aimed at strengthening scientific and technological progress and ensuring organic unity between the scientific and technical development plans and the other sections of the economic and social development plans, a substantial role is being assigned to an expansion of programmed planning, including in the development of programs, first, to solve the most important scientific and technical problems and the problems of the overall use of natural resources, and, secondly, for the reequipping and reconstruction of associations and enterprises

coordination of production plans and material resources on the level of every production association and enterprise is achieved on the basis of the conclusion of five-year economic contracts between output producer enterprises and consumer enterprises, and also between industrial enterprises and trade and transportation organizations and material and technical supply organizations.

Increased responsibility is given to Gosplan USSR, Gossnab USSR, and to the ministries and departments for the balancing of output distribution plans which are made up and approved by them. The decree provides for a system of measures to strengthen and direct economic relations and contract relations, to develop progressive forms of guaranteed supplies for enterprises and construction organizations, to develop a network of firm stores for the sale of consumer goods, to improve the organization of wholesale markets, and to strengthen planning and contract discipline.

Ensuring the overall development of union and autonomous republics and other regions requires that new forms of combining branch and territorial planning be found. In order to do this it is important to define the aspects of planned economic management which fall to the greatest extent within the competence of territorial agencies. At the same time, it is essential to improve the organization of the movement of planning information which makes it possible to examine regional processes in a complex. With this in view, provision is being made for an improvement of the territorial breakdown of branch plans and for their joint examination by the Councils of Ministers of the union republics. The USSR ministries and departments inform the Councils of Ministers of the union republics of the necessary control figures and basic indicators of the draft and approved plans for their subordinate production associations, enterprises and organizations which are located in a given republic; the enterprises and organizations themselves present the corresponding data to kray, oblast, and city planning commissions and to the Gosplans of the autonomous republics. The Councils of Ministers of the union republics communicate their proposals on the draft plans for associations, enterprises, and organizations of union subordination to Gosplan USSR, while for plans for contracting work which is carried out by the union-republic ministries of these republics they provide this information to Gosplan USSR and the corresponding USSR ministries. On this basis, they are thoroughly coordinated with the proposals of USSR ministries and departments with regard to the tasks of a fuller and more efficient use of production potential and natural, labor, and local resources and the creation of the conditions for the overall economic and social development of the republics. The development and approval of summary five-year plans for the production of local construction materials and of consumer goods, the development

of municipal housing and cultural and domestic construction plans, and control over the execution of these plans is carried out by the Councils of Ministers of union republics and by the autonomous and local Soviets of People's Deputies. A number of new proposals relate to an improvement in plans of the calculation of material and labor resources by areas of the country, to ensuring the efficient siting of production forces, and to composing optimal freight flows for mass hauls. Great importance is being attributed to the development of summary capital construction plans for territorial-production complexes. A special prodcedure for making up draft plans is established for the territorial-production complexes of Siberia and the Far East.

Great attention is devoted in the decree to an improvement of the planning of capital construction whose most important directions envisage, first, the development, beginning with the 11th Five-Year Plan, of stable five-year plans for capital investments which are balanced with material and equipment resources and supplied with the capacities of construction and installation and planning organizations and with labor and financial resources and with a view to the creation of the necessary reserves. Secondly, they envisage a priority for directing capital investments, resources, and equipment for the reconstruction and reequipping of the existing production potential on the basis of the latest equipment and technology. Thirdly, they envisage the construction of new and the expansion of operating enterprises on the condition that there is a full use of production capacities in the economy and the introduction into production of the latest technological and technical equipment. Toward this end, lists of newly begun construction on enterprises and installations and lists of objects which are to be reconstructed and expanded are approved within the five-year plans. Fourthly, they envisage a strengthened role in planning, in work evaluation, and in the economic stimulation of construction and installation and planning organizations of the indicators of the final results of their work and of an increase in the effectiveness of capital investment. The most important approved indicators are: the commissioning of production capacities and objects, including an increase in capacities on the basis of the reequipping and reconstruction of operating enterprises; a rise in labor productivity; profits (for individual organizations -- a decrease in the cost of construction and installation work); and an assignment for the introduction of new equipment.

As the norm and the estimate base is made up the planning of labor productivity in construction and installation organizations will also be carried out during the 11th Five-Year Plan on the basis of net output (normed) or of another indicator which more exactly reflects changes in labor expenditures, and the wage fund will be planned on the basis of expenditure norms per ruble of output.

With the above-described regulations as a basis it is planned as early as 1981 to complete the introduction of settlements between a client and a contractor for fully completed and commissioned enterprises, start-up complexes, stages, and objects. The planning of the production and delivery of equipment and the financing of capital investments is not limited to the annual plan, but is envisaged for the entire period of construction, up to the commissioning of enterprises and complexes. There is an increased role for bank credit in the system of financing capital construction with the use for these purposes of clients' funds which are released when settlements are made without intermediate payments. Gradually individual branches will shift to a procedure under which construction will be carried out on the basis of credit extended by Stroybank USSR to contracting construction and installation organizations for the full cost of construction as determined by the estimate.

A broad complex of measures has been worked out in the decree to develop cost accounting and strengthen the role of economic levers and stimuli in accelerating the use in production of new equipment and technology, ensuring an economy of labor and materials, improving the quality of output, and increasing production efficiency. It is planned to further develop cost accounting on the basis of the stable indicators and economic norms of the five-year plan and to increase the role of quality indicators in evaluating and stimulating the work of cost accounting elements. It is considered that the creation of large production associations is expanding the possibilities for economic maneuvering and for developing cost accounting in the primary production element and is creating the preconditions for the formation of cost accounting relations in a branch as a large production and management and scientific production complex. In addition, cost accounting in the work of the all-union industrial association, the scientific production association, and in scientific research, planning and designing, and production planning organizations is being effected under the conditions of a further development of the economic independence of production associations and the clear regulations of the function of each element in the single process of managerial direction.

It is pointed out that an evaluation of work and the formation and use of economic stimulation funds has to be based on qualitative indicators which characterize the following: the satisfaction of the needs of clients (the fulfillment of output deliveries in accordance with contracts and schedule orders); an improvement of the quality of output (an increase in the production of highest quality category output); and an increase in labor productivity, a decrease in expenditures of material resources, and an increase in profites. Other qualitative indicators are also employed with regard to the special characteristics of production.

Great importance is being attributed to the establishment of a system of economic norms, including norms for wage expenditures per ruble of output and norms for allotments from profits to the economic stimulation funds and to the single fund for the development of science and technology. Norms for the distribution of profits to the state budget and for the disposal of ministries, associations, and enterprises are being introduced in the branches as they shift to the new conditions of economic management which provide for the overall use of all of the elements of the managerial mechanism which is based on stable five-year plans.

A stimulating procedure for making payments to the budget is being established. When there is a failure to make the payments to the budget from profits which have been established in the plan, they are made in full on the basis of a decrease in the profits which are left for the disposal of a ministry. This part of profits is also used for the payment for above-norm uncredited stocks of commodity assets and uninstalled equipment. At the same time, economies in the fee for capital (when production and profits plans are fulfilled with the use of less expensive capital than called for by the plan) remain at the disposal of associations, enterprises, and organizations. The payments to the budget which have been established for a ministry as a whole in keeping with branch profits distribution norms are reduced by this amount.

It is planned to use stimulating methods for the distribution of above-norm profits in relation to the degree a plan is over-fulfilled. With a 3 percent plan over-fulfillment, 50 percent of the above-planned profits remain at the disposal of a ministry, association, and enterprise. If the plan is over-fulfilled by more than 3 percent, they receive only 25 percent of the excess amount.

The strengthening of the stimulating role of the monies of the single fund for the development of science and technology which is created in ministries and departments on the basis of profit allotments is of especial importance. Its amount is determined on the basis of the amount of work done to develop science and technology and with regard to an increase in production and an increase in the effectiveness of scientific development work. The limits for the use of monies from this fund are being greatly expanded.

The role of economic levers and stimuli in improving output quality and accelerating assortment renewal is being increased. This is being achieved by means of differentiating the amounts of wholesale price markups for output with the Token of Quality (in relation to the annual economic effect and the technical level of products). Markups are being increased by 1.5 times for products which realize inventions and discoveries. Different effective periods are being established for the markups (four-five years) in relation to the complexity of products.

If characteristics are not improved, when there are second certifications and Mark of Quality awards to the same output, the amounts of the markups and their effective periods are cut in half. Wholesale price discounts are employed for second quality category output and for output which has not been certified within an established schedule. In order to stimulate an improvement of output quality wholesale price markups and discounts are taken into account when planned fulfillment is evaluated and are not considered when a plan is made up. A special procedure for stimulating products with the Mark of Quality has been established for consumer goods.

It is planned to improve the system of employing fixed payments for highly profitable types of production purpose output, and also the system of credit for highly effective measures connected with the production of new output, the development of science and technology, and improvement of the quality of the products, and expansion of the production of consumer goods, and others.

In order to improve the use of labor resources and to stimulate a rise in labor productivity markups are being established for wage rates and salaries on the basis of an economy of the wage fund; the present contribution rates to state social security are being increased; and the team forms of organizing and stimulating labor are receiving a further development.

The stimulation of the production of products employing cheap (compared to those used in the economy) types of materials and of output with lesser materials intensiveness is being strengthened by means of retaining the level of wholesale prices and the amount of profits received from the sale of the previously produced (replaced) output until the end of the five-year plan.

The bonus system is being improved for the development, mastery, and introduction of new equipment and for the advance commissioning and mastery of new capacities; the same applies to wages for an increased proportion of reequipped and reconstructed enterprises in total construction and installation work and for the fulfillment of progressive technically substantiated norms. In addition, the system of economic sanctions is being strengthened for violations of contract relations in connection with a simultaneous improvement of the system of settlements for delivered output.

Other measures for stimulating and improving the quality of work and its final results are also planned. The practical realization of the decrees require the most rapid development of a number of methodological instructions, regulations, and norms and the reflection in the corresponding documents and norms and indicators of the new methods of planning

management. Large tasks are arising for the economic and other institutes of the USSR Academy of Sciences, Gosplan USSR, branch institutes, and vuzes both with regard to working up the methodology and organization of planning and of the managerial mechanism in accordance with the regulations of the decrees and with regard to studying the most important scientific and technical, economic, and social problems over the long term. At the same time, basic scientific research has to be more closely coordinated with the development of the system of plans and provide the basic preconditions for the adoption of decisions connected with improving structure and proportions and the creation of a production potential on the basis of the latest achievements of science, engineering, and technology. More attention has to be devoted to the solution of the overall problems of further improving the managerial mechanism itself and the organizational structures and methods of management. It is necessary to strengthen connections between science and planning agencies and production in order to organize the effective use of everything new which is provided for in the decrees which have been adopted.

The CC CPSU is setting the task of concentrating the efforts of party, government, economic, trade union, and komsomol organizations and workers' collectives on the realization of the planned measures, of achieving a powerful new upsurge in the economy, and of making an important contribution to strenthening the might of our socialist homeland and building the material and technical base of communism.

2959
CSO: 1820

FINANCING INVESTMENT IN THE SOCIAL SECTOR

Moscow VOPROSY EKONOMIKI in Russian No 10, Oct 79 pp 115-123

[Article by E. Gorbunov: "Social Investments: Organization, Financing and Efficiency"]

[Text] The article by Academician T. S. Khachaturov, "Ways to Heighten the Efficiency of Capital Investments" (VOPROSY EKONOMIKI, No 7, 1979), raised important questions concerning the development of our economic system at the present-day stage, questions which were connected with the need to increase sharply the yield of the vast economic potential of the USSR and, first and foremost, of investment potential.

The concept of "investment potential" is not restricted only to sectors of the physical sphere of production.[1] A rise in the role of social investments, the efficiency of which is of great importance to the level of national economic efficiency as a whole and to putting major sectorial and regional programs into effect, is inherent in the economic system of developed socialism.

The period of developed socialism is characterized by an augmentation of the role of social policy in the social and economic life of society. This finds its expression in the strengthening of the social orientation of national economic planning,[2] in consolidation of the integration of production and social processes and in an expansion of social planning within production subunits of the physical sphere of production (enterprises, associations), sectors (agriculture), territorial zones (urban agglomerations, oblasts and autonomous soviet socialist republics, agro-industrial and regional production complexes).

The growing significance of social policy is accompanied by a substantial increase in resources for the development of the nonproductive sphere, including social investments as well. Capital investments in nonproductive sectors (including housing construction) in 1971-1977 amounted to 221 billion rubles or 30.2 percent of the total sum of capital investments and nearly 50 percent of production investments. The relative share of the fund of nonproductive investments in the national income used in 1977 was equal to 8.9 percent. The excess of actual capital investments over planned investments in 1977 was

3.4 billion rubles, while that of current physical input was 2.7 billion rubles; meanwhile, the quantity of the latter grew by 47.8 percent during the Ninth Five-Year Plan (the plan had called for 35.8 percent) and reached 9.2 percent of the national income used in 1977 (in 1965 it was 8.1 percent and in 1970 it was 8.2 percent).

A high level in the country's economic development makes for a tendency toward integration of production and social processes in the over-all dynamic of social production. Naturally, the development of physical production is the primary process and determines the development of the social sphere, the volumes and rate of its growth, the types of enterprises, their siting, etc. However, as early as the pre-drafting and pre-planning stages, the making of the majority of production decisions is accompanied by a preliminary examination of the social aspects.

With the creation and development of industrial centers, industrial regions, agro-industrial and regional production complexes, enterprises of the social sphere have begun to enter organically into the respective national economic complex and fulfill an important role both in raising the productivity of national labor, as well as in solving social problems. The combining of production and social measures provides the maximum economic impact.

Thus, in putting into effect the decree of the CPSU Central Committee and USSR Council of Ministers, "On Measures for the Further Development of Agriculture in the Non-Chernozem [Non-Black Earth] Zone of the RSFSR," the task of a sharp increase in the production of output by farming and animal husbandry on the basis of intensification and a maximum economy of living labor (the labor-saving variant of the investment program) was made directly dependent on carrying out the social transformation of the vital activity of more than 16 million individuals in the populace of rural localities residing in the Non-Chernozem Zone of the RSFSR. These measures include the resettlement from 1975 to 1980 of 170,000 families out of 143,000 large and small villages into 29,000 long-range population points and the creation in each of these settlements of a complex of enterprises for social-and-cultural, personal and municipal services.

The social program for transforming the Non-Chernozem Zone will promote the concentration of the rural population, an improvement in the demographic situation in the village and the securing of a permanent contingent of the labor force in agricultural production, which, in the final analysis, will be a factor in a sharp rise in the efficiency of agriculture and in the growth of the volumes of production of agricultural output.

In order to put large-scale production and social measures into effect, means from Union ministries and departments and many republic organizations are being drawn upon. Major inter-oblast enterprises of the building industry, planning organizations and interkolkhoz construction trusts are being created. The experience of putting the social program into effect in the Non-Chernozem Zone deserves the greatest attention.

However, on account of the fact that the necessary optimization of social investment has still not been achieved on the scale of the country as a whole, an increase in the relative share of sectors of the social sphere in gross capital investments is not being accompanied by as substantial an impact on the national economy. The shortcomings in this area are connected in the main with the departmental and territorial dissociation of social investment. This leads to a lack of coordination in terms of time, volume and structure of production and social investments both for the country as a whole, as well as in putting individual sectorial and regional programs into effect and to the absense of a single source for the financing of capital construction, the consequence of which is an inordinate dispersal of social investments. As a result, a lack of balance arises between the value, material-physical and organizational-technical structure of capital construction in the sectors of the nonproductive sphere, which leads to a reduction in the national economic impact of social measures.

The capital construction of objects of the nonproductive sphere in terms of its many sectors (personal services, health care, culture) is carried out, as a rule, by numerous small-scale contracting construction organizations that are distinguished by a low efficiency in the construction process (administrations of capital construction and capital construction departments of the executive committees of local Soviets, interkolkhoz organizations, contracting organizations of sectorial ministries). The construction of buildings and installations for enterprises of the nonproductive sphere is characterized by high capital intensiveness, inasmuch as new construction occupies a predominant importance and is notable for the lack of an over-all thrust. During their construction, individual plans are often used, plans which require lengthy drafting and substantial means (personal and municipal services). A special problem is presented when it comes to the prompt commissioning of engineering and transport distribution supply lines and lines of communications and the construction of objects for environmental protection. The striving toward narrow specialization often leads to the de facto despecialization of enterprises of the nonproductive sphere, since the special contemporary features of this process[3] and the fact that the greatest national economic impact is obtained with the over-all satisfaction of the demands of the populace for services are not taken into account.

A uniform load on construction capacities and the uniform turning over of objects for operation are also important problems. The deadlines for turning over objects for operation are usually postponed to the second half of the year, and more often than not, to the last quarter[4] in the plans for housing, municipal-and-personal services and civil capital construction. This leads to a lowering of quality, an increase in the cost of construction, a disruption of the planning ties of the deadlines for commissioning objects with the periods of time for providing them with manpower and physical resources and planning estimates and to an increase in the number of objects under construction at the same time.[5] As a result, an overextension of funds and resources, a dragging out of the periods of time for the construction of objects, and a failure of their engineering and pipe line fittings to be provided for and installed as a single batch, which represents an actual delay in the commissioning

of housing, of enterprises for personal services and municipal purposes, social-and-cultural institutions and of objects for protecting the environment, are often observed.

In our view, one of the main reasons for the substantial shortcomings in the capital construction of the sectors of the nonproductive sphere is the fact that up until this time the development of sectors of the nonproductive sphere has been viewed by many economic and planning employees without taking into account their role in providing for the economic growth and development of society as a whole. According to tradition it is thought that economic impact is manifested only in the form of an increase in the added number of material blessings and hence is supposedly possible only in the physical sphere of production.

At the same time, as Academician T. Khachaturov notes, in the nonproductive sphere "some methods documents recommend that one determine the efficiency of capital investments on the basis of the same principles as one also applies in the productive sphere.... In this there is a substantial gap between economic theory and practice."[6] The resource approach, in his opinion, which is characteristic of this method of planning, narrows the concept of "resource" to refer only up till its production forms, excluding consumer resources (goods and services). Finally, the practice that has taken shape of hitching objects of the nonproductive sphere to key enterprises of the physical sphere (as a rule, of industry) has earned them the treatment, as V. Krasovskiy notes, afforded an ancillary link of individual sectors of physical production and individual enterprises.[7]

Meanwhile, with the vast social meaningfulness of the development of these sectors in mind, the direct production impact is achieved here, first and foremost, by virtue of a substantial reduction in labor turnover (losses in industry alone amount to no less than 3 billion rubles a year), of a lowering of losses of working hours on trips by peasants to cities for the satisfaction alone of everyday services requirements reach approximately 15 percent of the time worked, which translated into cost of output corresponds to no less than 18 billion rubles), and a decrease in the reverse migration of the population from the eastern regions (the estimated impact from a reduction in migration of the population out of the regions of Siberia and the Far East has amounted to no less than 200 million rubles annually over the course of the past 15 years).

In our opinion, the introduction into politico-economic circulation of a category of socio-economic optimum as a concept reflecting the goal of measures for social planning, expenditures on putting them into effect and, finally, its production and socio-economic impact is necessary. In concrete terms, the socio-economic optimum of a production measure shows, first of all, what kind of socio-economic conditions must be created, what kind of expenditures made and what kind of resources to be drawn upon in order that the production decision in question might be the most efficient. Secondly, obtaining the optimum socio-economic result can also be a self-contained goal both in the conduct of the production measure, as well as outside of it, which is connected with putting into effect

a range of measures and with expenditures of physical, financial and manpower resources. Finally, thirdly (the variant popularized at our time), on the basis of the integration of socio-economic and first-handedly production effects, their most optimum correlation is achieved in terms of the expenditures of resources and the over-all national economic optimum emerges as the sum of the production and socio-economic effects.

Until recent times, when engaged in social planning on a country-wide scale, those organizational forms and methods which had taken shape at the first stages of socialist construction were utilized. New forms for planning socio-economic processes, forms which are adequate for the period of developed socialism, must be worked out. The chief tasks in this, in our opinion, are the following: a higher level of centralization and concentration of resources for the social policy and an over-all thrust to measures to implement it; taking local initiative and local experience into account and its immediate dissemination, while giving consideration to the conditions that are taking shape; finally, a permanent link with the process of carrying out production measures, which immeasurably heightens the efficiency of utilization of production and nonproductive resources.

From the methodological side, the observance of two conditions is apparently important: the inclusion in the make-up of specific production investments of expenditures on the development of sectors of the nonproductive sphere[8]. and a precise accounting of the total national economic impact. This approach provides an opportunity to determine the quantities both of the over-all (in terms of gross capital investments), as well as individually of the socio-economic optimum (in terms of social investments) when compared with differing variants for the siting of major enterprises and the development of industrial centers, regional production complexes, etc. With the present-day demographic situation and the scarcity of vacant lands for building up urban areas, this approach is the most productive.

The basic theoretical and practical problem of the socio-economic optimum is the calculation of its impact. A calculation of inputs (resources) does not present any particular difficulties; however, the determination of the entire complex of consequences of socio-economic processes is still an unresolved question as of this time.

Many researchers link the socio-economic impact with an increase in the free time available to workers. Meanwhile, as Corresponding Member Ye. Kapustin stresses, a simply quantity of free time still does not tell about real social values.[9].

In our opinion, it is necessary when calculating the socio-economic impact to be guided by three methodological tenets. First of all, one must separate socio-economic results which can be expressed quantitatively from results which still do not lend themselves to concrete calculation and must be gotten beginning on the basis of the principle of "all other things being equal." Secondly, the calculation of the socio-economic impact must be carried out directly in

terms of the location where it is realized, since the social conditions over the territory of the country are still not uniform. Thirdly, the socio-economic impact must be calculated in terms of the entire group of sectors of the nonproductive sphere, owing to the fact that it is the synthetic result of their over-all development. From this point of view, sectorial methods for determining the socio-economic impact have significance only for ministries of the sectors of the nonproductive sphere (trade, personal and municipal services, etc.) and, taken as a whole, elicit great doubts. Thus, one hour of free time in sectorial calculations is assessed in intervals from 0.56 rubles at enterprises of urban passenger transport to 1.02 rubles in everyday services. Hourly productivity then of an employee in sectors of transport and communications amounts to 1.05 rubles, to 1.26 rubles in agriculture and to 1.82 rubles in all social production.[10]

The carrying out of a number of organizational measures that do not require, as a rule, great expenditures is necessary in order to heighten the efficiency of social investments. The impact then from carrying them out is immense. Thus, the introduction of the method of continuous construction in Orël and in a number of other cities has enabled a reduction in terms of the system of contracting organizations alone in the number of objects being built at the same time to 1.5 to 1.7 times the previous rate, a decrease in the periods of time required for construction by 15 to 20 percent, a rise in the quality of construction and installation work, a diminishing of expenditures on the maintenance of the management staff (up to a 40 percent saving of funds) and the ability to ensure a steady rhythm in the process of making housing available.

The social program for the transformation of the village which is being carried out in our country (the Non-Chernozem [Non-Black Earth] Zone of the RSFSR, Kazakhstan, etc.) requires the use of the continuous planning method and the over-all construction of objects for the social sphere in rural localities as well. According to calculations by specialists, the transition to an "uninterrupted style" in rural construction projects raises the labor productivity of builders by 35 to 40 percent and reduces the volume of unfinished construction by 20 percent.

At the same time, in a number of the country's regions (for instance, in the Non-Chernozem Zone of the RSFSR), local organs are striving to the maximum extent possible to consolidate rural settlements, at times so doing without providing the proper scientific substantiation for their sizes, proceeding only on the basis of the need to ensure the interconnectability of the territorial system of resettlement of the population in new locations. Thus, in various regions it is the practice to build up a village with high-rise construction, which hinders the running of the private subsidiary sector and does not take into account the age-old traditions of the rural way of life. They also do not always provide for the construction of roads in a rural locality, which, as a rule, alter the attitude toward long-range thinking in one or another population point and are conducive to providing it with a complex of housing-and-municipal, personal services and social-and-cultural objects. At the same time, in order to introduce an "uninterrupted style" in a rural locality, the creation of consolidated inter-kolkhoz construction organizations is

required, as a substantial portion of rural construction is carried out by an inefficient operational method or by the inhabitants themselves. At the same time as the formation of inter-kolkhoz construction organizations, enterprises that manage the operation of the objects, installations and distribution supply lines that have been built are also needed. Finally, it is required to narrow the diversified nature of project planning for rural construction, after specializing it in specific directions.

The transfer of social investment to the principles of continuous planning is connected, to begin with, to providing for a unified organizational basis: the creation of a system of "single client—single investor--single contractor." As experience has shown, it is advisable in cities to entrust executive committees of the Soviets of Peoples' Deputies or enterprises of the ministries and departments carrying out the construction of basic objects for production and nonproductive purposes with the organization of the service of a single client. Enterprises of the physical sphere that are situated in the city in question must turn over to the single client capital investments for the construction of housing, childrens' and pre-school institutions and other objects of municipal services for joint use by way of their proportionate share of participation. It is advisable to entrust a specialized planning and construction organization (trust), which at the same time performs the functions of both project planning and construction, with the functions of contractor for construction of enterprises and institutions of the social sphere.

The organization of continuous planning is far more complex in a rural locality. The functions of a single client and investor with the corresponding combining of the financial resources of kolkhozes and sovkhozes, as well as of a portion of the assets of sectorial republic ministries of the social sphere, must apparently be assumed by the administrations of capital construction of the oblast Soviet executive committees and councils of ministers of autonomous Soviet socialist republics, while the functions of a single contractor must be assumed by specialized planning and construction trusts.

In conjunction with this, one must be guided, in our view, by the fact that the city and the rural locality adjacent to it is a single socio-economic complex. In siting objects of the social infrastructure in a rural locality (including the eastern regions of the country), it is most advisable to apply the zonal principle, which envisages the siting in major settlements (rayon centers, railway junctions) of specialized enterprises that utilize industrial methods of production (factories for dry cleaning, medical treatment centers, major places of entertainment, etc.). It is necessary to have on a level with this a widespread network of receiving points (personal and municipal services), of schools (primary and secondary), polyclinics, paramedics' points, postal departments, etc. in large and small villages. The over-all development of enterprises of the nonproductive sphere within the limits of individual territorial zones enables one to raise sharply their efficiency by virtue of a substantial increase in the volumes of services offered on the basis of their coordination: with the plans for development of sectors of physical production (motor vehicle industry—construction of motor vehicle highways—automotive services; the

production of finished consumer goods—repair services for restoring their use value; providing enterprises of industry, transport, construction, etc. that are either functioning or under construction with sewage installations); with plans for the resettlement of residents (public health, education, science, sports, culture, municipal and everyday services of a personal nature); and with the development of individual regional production complexes and economic zones (The Non-Chernozem [Non-Black Earth] Zone of the RSFSR, BAM [Baykal-Amur Main RR Line], the Sayano-Shushenskiy and Tyumen' complexes, etc.).

The centralization of assets and resources provides an opportunity to raise substantially the engineering level of sectors of the social infrastructure, to specialize production on the basis of the creation of major (in conformity with the size of the population) enterprises and to form a single production control service, transport system and advertising services for all sectors of the social infrastructure of the rural complex in question.

In conjunction with this, in our opinion, a definite delimitation of functions of client between local Soviets and ministries of the non-physical sphere of production is required. If it is necessary to entrust the responsibility for the construction of objects for housing, civil and general purposes (transport services, distribution supply lines, advertising, production control service, the receiving network for everyday services enterprises, etc.) to local Soviets (client) and the Ministry of Rural Construction (contractor), then the construction of major objects of the social infrastructure (specialized enterprises for everyday and municipal services in rayon centers, medical treatment centers, department stores, etc.) must be carried out upon order and according to plans of the respective ministries of republic importance.

In this connection, the organization of inter-oblast planning and construction trusts for the construction of major specialized enterprises for social, cultural-personal and municipal services that perform capital work on the basis of cost accounting and act as contractors in respect to oblast, kray and republic Soviet organs is advisable in certain instances.

The principle of centralized financing of the nonproductive sphere must be spread to material and technical supply as well. The formation in each of the territorial zones of a single operating unit is also required. In connection with this, it is necessary to create large-scale bases for material and technical supply that work on the basis of cost accounting in order to outfit objects that have been built with complete sets of equipment, this to be accompanied by the corresponding elimination of small-scale organizations, and to create specialized trusts that are in charge of the operations of objects of the social sphere that have been put into operation, including the task of solving the problem of providing them with transport.

A particular problem is planning the social development of regional production complexes in the east of the country. The plans for the social development when viewed in a regional cross-section at the present time embrace the oblast or autonomous republic. Meanwhile, regional production complexes are often

located at the junctures of several oblasts and are characterized by a dissociation of the zones of settlement and a shortfall of transport distribution lines. Owing to departmental barriers, local Soviets do not have an opportunity to carry out capital construction in the sphere of services in terms of an economically sound complex, i.e., to envisage that optimum structure for enterprises in the sphere of services in the oblast, kray and economic region which would create conditions both for a growth in the volumes of consumption of services and a rise in the quality of services, as well as for a reduction in outlays for the entire sphere of services and a rise in its profitability. The basic reason is the double subordination of the enterprises that build objects of the nonproductive sphere to the administrations of capital construction (capital construction departments) of local Soviets and to republic ministries for personal and municipal services, education and health care.

The development of a system of enterprises of the social sphere in a regional production complex requires special methods for planning, organization, management, material and technical supply, financing and capital construction that are in keeping with the specific conditions of each of the regional production complexes. In conjunction with this, it is necessary to take into account to the maximum degree possible that unfinished work which occurred in the past in the planning of regional production complexes. As was noted at the Second All-Union Scientific and Practical Conference on the Problems of the Economic Assimilation of BAM [Baykal-Amur Main RR Line], the building up of the zone of the regions of construction of the main line with objects for the populace "is based on the experience obtained in the formation of the Siberian regional production complexes. This experience is valuable not only for the tested formulas for development, but also for the warnings. In years gone by we could see to what the underestimation of the accompanying sectors, of residential complexes and of services for everyday life would lead. They were created slowly, as a second order of priority, which, in the final analysis, held back the assimilation of the full capacity of basic production lines." In this connection, "the need to create from the beginning objects of an infrastructure character, first and foremost, for nonproductive purposes"[11] was stressed. In our opinion, it is advisable to apply here the principle of preliminary extension of credit and financing of the construction of enterprises in the social sphere through the USSR All-Union Bank for the Financing of Capital Investments.

A prerequisite for the over-all solution of the social problems of regional production complexes is the creation of a special fund for social development of the regional production complex, the assets from which are formed from assets of the sectorial ministries of the sphere of services (trade, everyday services, culture, education), as well as from deductions from the funds for social development of enterprises of the physical sphere of production of the regional production complex in question and of local Soviets. It is possible to finance a substantial portion of the expenditures for the development of the sectors in the sphere of services within the limits of a national economic complex by virtue of the combined assets of enterprises of physical production and of local Soviets.

The national economic impact of regional production complexes is created jointly both by enterprises of the physical as well as social sphere. The mutual exchange of activity between the physical and non-physical spheres of social production requires that in planning and operational practice certain cost accounting principles be established that would regulate the really existing economic ratios between the contractors of both spheres. This applies in full measure as well to the mutual relations between enterprises of industry, construction, transport and agriculture, on the one hand, and the sphere services on the other. The practice of a number of oblasts has confirmed the fruitfulness of such collaboration both for the solution of regional problems, as well as for the national economy as a whole.

Proposals for the establishment of cost accounting interrelations between sectorial and territorial organs have already been expressed in the press for a long time now. It is tentatively possible to divide them into two variants. With the first variant, a portion of the surplus product of enterprises situated on the territory in question must go into the local budget. The share of the territory in the utilization of the surplus product of enterprises must be determined proceeding on the basis of the volumes of production and the number of individuals employed and of members of their families. In the second variant, a portion of the national income produced on the territory in question is transferred to the Union budget in accordance with the extent of productive capital, while the remaining portion is utilized for the development of enterprises and institutions of the social structure of the region in question. In our opinion, the first variant is more acceptable for present-day conditions.

The principle being suggested for the reimbursement by enterprises of expenditures on services being consumed can serve as one of the methods for establishing cost accounting interrelations between sectorial and territorial organs. It is fully in keeping with the sectorial principle of management of the national economy and strengthens the role of enterprises of sectors of the social sphere in the accomplishment of over-all economic tasks.

TABLE: Principle Governing Deductions of Enterprises of the Physical Sphere of Regional Production Complexes for the Development of Sectors of the Social Sphere

Sector	Principle Governing Deductions
Industry	Number of people employed*
Agriculture	Number of people employed*
Construction	Percentage of volume of construction and installation work
Freight Transport	Rubles per 1,000 tons of freight turnover
Geological Prospecting	Percentage of cost of geological prospecting work
Foreign Trade	Percentage of value of export of output

* With demographic coefficients taken into account

The decree of the CPSU Central Committee and USSR Council of Ministers, "On Improving Planning and Strengthening the Influence of the Economic Mechanism on Heightening Efficiency and Raising the Quality of Work," specifies a system of measures to strengthen the influence of social policy on heightening the efficiency of social production. The planning of the social development of society is introduced into the over-all range of measures in the economic policy of the Party and state and all statutes that regulate the process of drafting and compiling the five-year and annual plans for the national economy and of providing them with the necessary accounting data apply to it. Social programs have been specified in the structure of special-purpose national economic programs of a long-term nature. Among them are programs to reduce manual labor, to develop the zone where BAM is located and to increase the production of new consumer goods.

In accord with the decree, measures in the area of social development are component parts not only of the over-all state plan, but also of plans for the economic and social development of Union and autonomous republics, krays, oblasts, cities and rayons, as well as of ministries, departments, associations, enterprises and organizations. Of particular significance here is the new procedure for the formation of funds for providing economic incentives, in particular, the fund for social-and-cultural measures and housing construction. The role of local Soviets in the solution of social problems is being strengthened, especially in the planning and development of the regional production complexes of Siberia and the Far East. An improvement in planning, financing, organization and management of capital construction in the sectors of the nonproductive sphere will promote a rise in the efficiency of all social production in our country.

FOOTNOTES

1. See T. S. Khachaturov, "Effektivnost' kapital'nykh vlozheniy" [Efficiency of Capital Investments], Izdatel'stvo "Ekonomika", 1979, pp 176-208.

2. "Planning," said A. N. Kosygin at a meeting of the USSR State Planning Committee on 19 March 1965, "is, strictly speaking, not simply economic activity, as many often think. It is the working out of social problems, problems that are connected with raising the people's standard of living. We view the plan as a combination of economic and social tasks which one is faced with accomplishing during the planning period and as a complex of all questions linked with the life of man." (PLANOVOYE KHOZYAYSTVO, No 4, 1965, p 3)

3. For instance, in personal and municipal services, specialization proceeds not so much along a line of isolation of individual sectors so much as along the path of specialization of functions in the process of services (isolation of receipt and delivery of orders from production proper at major specialized enterprises).

4. In the majority of cities where residential housing is being erected, nearly 50 percent of the living space made available annually is turned over for operation during the fourth quarter of the year and approximately 40 percent in December.

5. Thus, in 1976, there were 32 departments engaged in building up Novokuznetsk, 140 in Krasnodar, 70 construction organizations in Kiev, etc. As a result, the share of sectorial ministries in the total sum of investments in housing construction amounts to 60 percent, to 70 percent for pre-school institutions, 45 percent for hospitals and polyclinics, etc.

6. T. S. Khachaturov, "The Efficiency of Capital Investments in the Nonproductive Sphere," VOPROSY EKONOMIKI, No 1, 1979, p 47.

7. See V. P. Krasovskiy, "Economic Problems of the Infrastructure in the USSR," VOPROSY EKONOMIKI, No 2, 1977, pp 30, 31.

8. The methodological positions (as seen in terms of principle) on this account are contained in an article by Sh. Rozenfel'd, "Rational Investments in the Nonproductive Sphere and the Efficiency of the Distribution of Production" (VOPROSY EKONOMIKI, No 11, 1971, pp 27-38).

9. See Ye. I. Kapustin, "Sotsialisticheskiy obraz zhizni" [Socialist Way of Life], Izdatel'stvo "Mysl'", 1976, p 269.

10. Calculations in terms of net output on the basis of data from the statistical annual "Narodnoye khozyaystvo SSSR v 1977 godu" [National Economy of the USSR in 1977], Izdatel'stvo "Statistika", 1978, pp 271, 378, 389, 404.

11. SOTSIALISTICHESKAYA INDUSTRIYA, 4 March 1978.

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FIVE-YEAR PLAN AND ECONOMIC MANAGEMENT

Moscow VOPROSY EKONOMIKI in Russian No 10, Oct 79 pp 3-14

[Article by A. Bachurin: "The Five-Year Plan and the Economic Mechanism"]

[Text] In his report to the 25th CPSU Congress L. I. Brezhnev pointed out, ". . . We are currently confronted by the task of raising the level of planning work, of putting that work into conformity with the new scope and outlook of our economy and with the new demands of time." In the decree adopted by the CPSU Central Committee and the USSR Council of Ministers, entitled "Improving the Planning and Intensifying the Effect Exerted by the Economic Mechanism Upon Increasing the Effectiveness of Production and the Quality of Work," there was a definition of the specific measures whose implementation will make it possible to achieve a substantial raising of the level of planning work as a whole in the national economy. The decree establishes a precise procedure and deadlines for the development of a system of state plans that assure the continuity of the effect of the long-range plans, the intensification of their role in the dynamic, proportional development of the national economy, and the planned activity of every production association (enterprise). In the system of plans there has been an intensification of the interrelationships among them, and a guaranteeing of the necessary unity in the planning of scientific-technical progress and economic and social development.

The decree of the CPSU Central Committee and the USSR Council of Ministers presented the planning and economic agencies with a responsible task -- that of thoroughly and consistently mastering five-year planning, of converting the five-year plan truly into a working program to guide the activities of every ministry, association, and enterprise. This requirement is objectively influenced by the creation of large-scale production and scientific-production complexes in industry and the other branches; by the complication of the interbranch and interregional ties by virtue of the considerably increased scope of social production; by the formation of many large-scale territorial-production complexes; as well as the necessity of the more efficient combination of branch and territorial development. It is also necessary to take into consideration the fact that the five-year period to a greater degree conforms to the tasks of improving the planning of scientific-technical

progress, the structure of production, and the proportions in the national economy.

During the five-year period one can, for the most part, accommodate the cycles for renewing the production of many types of output and the resolution of major scientific-technical problems. At the same time, within the confines of the five-year plan one can define and coordinate with resources the technical-economic and social tasks in the plans, and establish stable production ties among the enterprises. In a word, the five-year plan can be used sufficiently effectively as a basic method of administration and economic management at all levels of branch and territorial administration and on the scope of the national economy as a whole. The accumulated experience confirms the feasibility of fulfilling these tasks. On the basis of the five-year plan in a number of branches long-term economic ties are formed among enterprises; cost accounting is being developed within the confines of the branch; and the system of economic incentives is being improved. The extension of the socialist competition also is coordinated with the fulfillment of the assignments in the five-yer plan. The adopted decree confirms the available experience and makes it the property of the entire system of the planned administration of the national economy.

A task that is being posed for the first time is the task of evaluating the fulfillment of the five-year plan at all levels in a cumulative total from the beginning of the five-year plan, and the annual plan by a cumulative total from the beginning of the year. This intensifies the self-interestedness in the development of the intensive annual plans and increases the responsibility borne by the planning and economic agencies for the unconditional fulfillment of the assignments in the five-year plan.

The adopted decision also changes the role of the annual plans, which, beginning with the Eleventh Five-Year Plan, are to be developed not according to especially established assignments or control figures, but, rather, on the basis of the assignments and economic norms of the five-year plan for the particular year with their necessary refinement in all specific details. The annual plans drawn up on the basis of the assignments of the five-year plan and the concluded contracts with the consumers of output are prepared from the bottom, that is, by the production associations (enterprises) and organizations with a consideration of the reserves and capabilities that are ascertained in the course of the socialist competition, counter planning, the extension of inventiveness, efficiency improvement, and other trends in the creative activity of the masses. This provides the possibility to draw the labor collectives on a broader scale into the development and discussion of the draft versions of the annual plans.

In order to draw up a scientifically substantiated, balanced five-year plan, provision has been made for the development of control figures and a system of scientifically substantiated technical-economic norms and quotas by types of operations and expenditures of labor, raw and other materials, and fuel-and-energy resources, and norms for the use of production capacities and specific capital investments. In this direction, work is currently

being done at USSR Gosplan and the branch ministries and departments of the USSR. The task consists in assuring that, when the plan for the Eleventh Five-Year Plan is being drawn up, the ministries, associations, and enterprises make broad use of the economic and engineer computations and the data constituting the production record of each enterprise. In 1979 and 1980 the ministries are to provide every enterprise with a production record, and to provide in that record the data concerning the existence and level of use of production capacities (including data concerning the coefficient of shiftuse of equipment), concerning the organizational-technical level and specialization of production, and other technical-economic indices that are necessary for drawing up the five-year and annual plans.

The planning and economic agencies are to devote special attention to improving the balanced condition of the five-year plan. The development, for each year of the five-year plan, of the material, labor, and value balance sheets and resources of the necessary resources constitutes a very important condition for its successful fulfillment. With a consideration of that fact, the decree provides for the drawing up of material balance sheets (according to a consolidated products list) and plans for the distribution of resources among the basic holders of capital by years of the five-year plan. The improvement of the coordination of the production plans with the material resources at the level of each production association and enterprise will be achieved on the basis of the conclusion of five-year economic contracts between the enterprises producing the output and the customer enterprises, as well as between the industrial enterprises and the trade, transporting organizations and organizations involved in material-technical supply. Simultaneously it provides for the broad development of direct economic ties; the introduction of progressive forms of the guaranteed supplying of enterprises and construction organizations; the development of a network of company stores for the sale of consumer goods; the better organization of wholesale fairs; the reinforcement of planning and contract discipline. All this is supposed to contribute to guaranteeing the reliable balancing of the five-year and annual plans.

In order to improve the practice of developing balance sheets and plans for the distribution of output by years of the five-year plan, it is necessary to accelerate the creation of a single system of norms and quotas. At the same time this is a necessary condition for accelerating the development and introduction into the practice of planning of an automated system for planning calculations (ASPR).

The intensification of the long-term approach to the balancing of the national-economic plans under present-day conditions is dictated by the dynamic nature of the development of production and by the change in the needs of the national economy as a result of the scientific-technical progress, the increase in the number of articles with a prolonged manufacture cycle, by the great importance of the new production capacities being activated in increasing the amount of output being produced, and by other causes. All this influences the necessity of developing plans for five years or more, as well as raising the level of balancing of the long-range plans.

It would appear that a different situation prevails when balancing the plans for the production of commodities for personal consumption with the public's effective demand, which demand changes more rapidly than production's needs for means of labor. It is well known, for example, that styles of women's clothing and shoes change rather frequently and the prediction concerning specifically what articles will have an increased demand in, say, 3 or 5 years, is not a simple thing. However, in the branches that produce commodities for the population, factors that are of decisive importance for balancing the plans are the long-range factors, the action of which should be taken into more complete consideration when drawing up the five-year plans. One of them is linked with the providing of stable growth rates for the production of raw materials for the purpose of increasing the production of the commodities that the public needs.

At the present there is a shortage of a number of commodities because of the insufficient amount of raw materials or the tardy activation of new production capacities. Another factor that is significant is the circumstance that the enterprises in light industry, as well as the trade organizations, are not taking the public's demand to the fullest extent. But all this is not the most important thing. If the question were to be reduced only to improving the study of demand, it could be resolved within the confines of the annual plans. In actuality, for the better coordination of the production of raw materials with the production of the products needed by the public, it is necessary to take a number of organizational and economic steps, including the improvement of the quality of the five-year plans, the improvement of their balanced state.

For the constant satisfying of the changing effective demand in the five-year plan it is necessary to provide for the creation of the necessary prerequisites: the correct correlation between the development of the branches producing the means of production, including raw materials for light and food industry, and the branches that produce the finished commodities for the public; the planned increase in the public's income, an increase that is balanced with an increase in the paid services and commodity resources; the creation of a material-technical base for expanding the production of commodities in the necessary variety and the proper quality in the branches of heavy industry; and a number of others.

One of the basic factors for the planned increase in the commodity resources is the steady increase in agricultural production, its further upsurge. In agriculture, in conformity with the decisions of the March 1965 and the subsequent Plenums of the CPSU Central Committee, there has been an intensification of the role played by the five-year plans in the planning of production and the procurements of output. The deviations from that principle, as was pointed out at the July 1978 Plenum of the CPSU Central Committee, do not promote the correct combination of centralized control with the development of initiative and independence of the large-scale production complexes in rural areas. The consistent implementation of the measures developed by that Plenum presupposes the improvement of the planning coordination of all branches within the confines of the agroindustrial

complex, the further increase in the role of the five-year plan in improving a very important national-economic proportion -- the proportion between agriculture and industry.

For the successful implementation of the new measures at the level of enterprises and associations, it is necessary that both the development of the national economy as a whole and its basic proportions and growth rates be regulated by the five-year plans that are reliably balanced for each year of the five-year plan. This posing of the problem is objectively influenced by the increased demands made upon long-range planning under conditions of the highly developed industrial production in industry and capital construction, and by the further intensification of the concentration of production and the social division of labor.

The large-scale production and scientific-production associations that have been created in recent years in industry, as well as the agroindustrial and interfarm complexes in agriculture, require the intensification of the long-range approach to the organization of their work. The planned activity of these associations cannot be assured simply on the basis of the assignments in current plans, annual contracts, or production orders from agencies engaged in material-technical supply. The advantages of the large-scale associations will be more completely realized with an increase in the role of the five-year plans in the organization of their economic activity, with the existence of stable contacts with the suppliers and customers and of prolonged contractual agreements. It is only if these provisos are observed that one can promptly prepare production for the release of new output in the necessary products list, and assure the rhythmical material-technical supply of production and capital construction.

The concentration of production which is being carried out in conformity with the decisions of the 24th and 25th CPSU Congresses is creating large capabilities for increasing effectiveness and quality. To a considerable degree this is being achieved on the basis of developing and deepening the specialization of production, the reinforcement of the scientific-technical subdivisions, the reinforcement of the work to raise the technical level and consumer properties of the output being produced. At the same time, better conditions are being created for material-technical supply and for prompt reciprocal shipments of output between the lead enterprises and the production entities.

An analysis of the results of the work of production associations indicates that considerable success is achieved by the associations which carefully develop in their five-year plans the measures for the technical development and improvement of production; the deepening of specialization of the production subidivisions that are part of the associations; the further development of the concentration of production; the improvement of the organizational structure and control; and also for the social development of the labor collectives. In a number of branches such as the automobile, aviation, and other branches, the five-year period is already becoming insufficient for the associations and major enterprises, and they are carrying out long-term planning for a longer period of time with a consideration of the peculiarities

of production and the tasks of scientific-technical development. This is becoming necessary for the coordination of the activities of the associations and enterprises on the scale of the branch and the national economy as a whole.

The decree provides for the completion within the next two or three years of the formation of production associations as the basic cost-accounting link in industry. Consistent steps must be carried out to assure the specialization and cooperation of production, the centralization of a number of services and the administrative functions of the production subdivisions that are to be united. The task has been posed to change over in 1979-1981 to a two- or three-link system of control in capital construction, keeping in mind the fact that the basic cost-accounting link in construction production must be the production construction-and-installation associations, or, in individual instances, the trusts. The further improvement of the production associations will have a beneficial effect upon the indices of production effectiveness, which must be provided for in the draft version of the plan for the Eleventh Five-Year Plan. On the basis of the associations, there will be a more successful resolution of the tasks of increasing the role of the five-year plan in assuring the rhythmical activity of every production complex, and of intensifying their orientation on improving the final national-economic results of their activities.

The decree of the CPSU Central Committee and the USSR Council of Ministers provides for measures that are aimed at raising the level of planning of scientific-technical progress and the more complete accounting of its results when resolving tasks of the economic and social development of scientific-technical achievements. They include the increase in the importance of comprehensive programs in planning very important trends in the development of science and technology. In coordinating these programs and providing them with the necessary resources, an important role is played by five-year plans. Five-year plans for the development of science and technology will determine to a greater and greater extent the growth rates and structural shifts in production. For their proper coordination with the plans for production and capital construction, it is necessary to improve the practice of developing five-year plans for the economic and social development of the country, as well as the five-year plans for the development of individual branches.

The existing practice of planning the development of science and technology, despite the measures adopted starting in 1968 for its improvement, does not yet guarantee the complete consideration in the plans for production and capital construction the latest scientific-technical achievements and the benefit accruing to the national economy from the progressive technology. In order to coordinate more closely all the sections of the state plan for economic and social development on the basis of scientific-technical progress, it is necessary, as the basic part of the five-year plans for the development of science and technology, to develop systems of programs for resolving major scientific-technical problems, defining in them the final goals, the technical-economic results, the deadlines and the stages of implementing the scientific

projects -- from scientific research to series production of new output -- as is stipulated by the indicated decree.

The scientific-technical revolution is changing not only the outward appearance of the enterprises, which is our time, to a greater and greater extent, are becoming large-scale production-technical or scientific-production complexes, but also the content of the five-year plans. In them there can be observed the intertwining and interaction of three basic sections: the raising of the scientific-technical level of development of the production entities and the enterprise (production association) as a whole; the production of the types of output, of proper quality, which the national economy and the public need; and the social development of the labor collectives. The close coordination of these sections is possible only on the basis of improving the methods of development and scientific substantiation of the five-year plans at all levels of administration of the national economy. One of the most important trends in the further improvement of planning consists in assuring that the five-year plan becomes the basic form for the planned organization of scientific-technical progress and for taking its results into consideration when resolving the economic and social problems both of nationwide importance and within the appropriate branch or enterprise.

In the new decree there is a precise definition of the system of indices for the introduction of new technology, which are approved in the five-year plan (with a distribution by individual years). Among them it is necessary to specify the basic assignments for the fulfillment of the scientific-technical programs and the economic benefit derived from the measures. The stipulated changes in the practice of planning, in addition to measures to intensify the monitoring of the technical level of output, have been called upon to accelerate the introduction of the scientific-technical achievements into production and to increase the national-economic effectiveness of science and production.

A very important trend in improving the five-year planning consists further in creating better prerequisites for the planned and rhythmical implementation of capital construction, and the prompt activation of new enterprises and objects. The decree has stipulated: the approval of a stable five-year plan for capital investments, which plan is balanced with the necessary resources and capacities of the construction organizations; the intensification of the orientation of the construction workers upon activating the enterprises and objects that have been prepared for activation; the planning of the existing production and construction as a single whole; the changeover to settlements for enterprises or objects in which the construction is completely finished; the approval for five years of lists of enterprises and structures which are to be newly begun; the approval of five-year plans for designing and exploratory projects. All these measures are dictated by the fact that, with every new five-year plan, there has been an increase in the scope of capital construction in our country and a complication of the tasks of planning and organizing the construction-and-installation operations, and supporting the construction sites with modern, highly effective equipment.

It is well known that the construction of many objects is carried out slowly, and frequently there is a cost overrun as compared with the approved estimates. There has been a considerable underfulfillment of the plans for the activation of new production complexes and other objects. Obviously, not all the shortcomings that have been observed in the organization of construction are linked with planning. Certain questions of administering construction, and the training and assigning of personnel, still remain unresolved. However, many problems of improving the situation in capital construction are closely linked with planning and construction designing.

Capital construction, more than any other branch of the economy, requires long-range planning. It cannot be organized in a sufficiently planned and rhythmical manner on the basis of annual or quarterly plans. And yet, in the practical situation, the planned and rhythmical nature of construction production is frequently violated as a consequence of the annual reexamination of the plans for construction-and-installation operations and the activation of new objects.

Under conditions of the planning practice that has developed, as well as the evaluation of the work performed by the construction organizations and contractors, the manpower and material-technical resources are dissipated in an excessively large number of objects which are simultaneously under construction. As a result many construction sites are not promptly provided with the necessary equipment, materials, or labor resources, and this hinders the introduction of progressive methods of organizing construction, including the application of the brigade contract, the changeover to settlements made on the basis of objects in which the construction is completed. In order to assure in capital construction the proper concentration of resources at the objects which are scheduled for activation in the next planning period and the creation of the conditions promoting the increase in the effectiveness of capital investments, factors that will be of decisive importance are the development and approval, beginning with the Eleventh Five-Year Plan, of stable five-year plans for capital investments, and the intensification of the orientation of the entire system of planning and economic incentives in construction upon the activation of the production capacities and objects. In order for these plans to be realistic and to be fulfilled promptly, it is necessary to assure the reliable balancing of the volumes of capital projects approved for each year of the five-year plan with the resources of materials, technological equipment, and the labor and financial resources. The necessary capacities of the construction-and-installation organizations must be promptly created.

How, then, does one assure the stability of the plan for capital investments in those instances when the estimated cost of constructing an object proved to be higher or there arises an urgent need for the construction of a new object that has not been foreseen by the five-year plan? Throughout a period of five years such instances are, of course, possible. But these problems can be resolved within the confines of the overall limit for capital investments or by drawing on a reserve formed at the ministry when the plan for capital investments is subdivided down to the subordinate

organizations. If, during the year that has elapsed, the operations at the particular construction site were executed in a lesser volume than was stipulated in the master construction list, the lagging behind that has occurred must be compensated for during the next year by drawing on the material-technical resources that were not used during the elapsed year, as well as by drawing on the reserves of the ministries. The stable five-year plans for capital investments have the advantage that they create the organizational and material-technical prerequisites for the planned and rhythmical activities of the construction organizations. However, it is not a simple matter to assure this stability in the actual situation. For the successful resolution of this task it is necessary to change over to the planning of the existing production and new construction as a single whole: to assure the continuous action of the plans for the individual construction sites and the increase in the economic responsibility borne by the customers and contractors for the activation of production capacities and objects; to carry out the financing of state capital investments continuously on the basis of the construction master lists for the entire period of construction in strict conformity with the approved estimate; to increase the economic self-interestedness and responsibility of the customers and contractors for the effectiveness of the capital investments; and to guarantee clear-cut organization and control of construction. Each of these directions is linked with the carrying out of organizational and economic measures, which have to be carefully prepared, as has been attested to, in particular, by the experience of Minpromstroy, Belorussian SSR, as well as the construction organizations of other union republics, where a number of new indices stipulated by the decree are already being introduced.

At the 25th CPSU Congress it was pointed out that an important trend in increasing the effectiveness of capital investments is the increase in the scope of the operations in industry, agriculture, and transport with regard to the technical re-equipping and remodeling of the existing enterprises. For these purposes it is necessary constantly to increase the output of various types of equipment and means of mechanization and automation of the production processes. When preparing the draft version of the plan for the Eleventh Five-Year Plan, special attention should be paid to developing planned balance sheets and computations for the use of the existing production capacities and fixed assets, as well as composite plans for the technical re-equipping and remodeling of existing enterprises. The priority of the technical re-equipping and remodeling of enterprises should also be assured when developing balance sheets and plans for the distribution of equipment by individual years of the five-year plan. In the five-year plan, after the complete study of the possibilities of increasing the volumes of production by means of the intensification of the existing and newly activated enterprises, it is necessary to determine the construction of new production objects. Preference is given at such time to the creation of those production capacities which would assure the increase in the final product with relatively smaller expenditures of live and embodied labor.

At the December 1977 Plenum of the CPSU Central Committee, the principle of the priority planning of capital investments was formulated. That principle

is oriented at the achievement of a higher benefit to the national economy. It should be observed not only within the branches, but also when distributing the resources among the country's branches and regions. The strict observance of this principle is an important task for the planning and economic agencies when when developing the draft version of the plan for economic and social development in 1981-1985.

It is necessary to consider the fact that substantial changes (as compared with those approved in the five-year plan) in the volumes of capital investments when drawing up the annual plans create no small difficulties in the administration of capital construction. There have been violations of the principle of planning of existing production and new construction as a single whole, as well as the principle of the continuity of the action of the plans and the financing of objects under construction. In such instances, the economic incentives also are weakly oriented at the acceleration of the activation of the production capacities and objects. Changes in the assignments by individual volumes of capital construction inevitably result in the introduction of the corresponding amendments in the other sections of the five-year plan, and this reduces the responsibility borne by the ministries and enterprises for the fulfillment of the state assignments approved for them for the five-year period. The practical implementation of the measures stipulated by the new decision for improving the planning of capital construction, and primarily for assuring the stability of the five-year plans for capital investments, will make it possible to create the necessary planned and rhythmical nature in the carrying out of construction operations and to make the principal consideration, when evaluating the activities of the construction organizations, the prompt activation of the new enterprises and objects.

Proceeding from the decisions of the 25th CPSU Congress, the decree stipulates measures that assure the intensification of the comprehensive approach to the resolution of the national-economic, branch, and regional problems. The practical realization of this principle is linked with the development of a system of scientific-technical, economic, and social programs as part of the basic trends in the economic and social development for the period of ten years and the draft version of the five-year plan.

The earmarked-program method, which is a mandatory element of national economic planning, under present-day conditions must be used more completely for raising the level of planning guidance, both along the vertical line and along the horizontal line, and for guaranteeing the more correct combination of branch and territorial planning. This is achieved as a result of the increase in the scientific substantiation of the goals and tasks of the plans, the intensification of the comprehensive approach in the planning of the development of the productive forces and in the use of resources, and the better coordination of the scientific-technical, economic, social, and organizational-administrative aspects of the development of the national-economic complex as a whole. The increase in the role of the earmarked-program method also makes it possible to overcome the narrowly local or departmental tendencies in the resolution of economic questions.

As part of the basic trends in the economic and social development until 1990, a system of comprehensive scientific-technical, social, and economic programs is being developed. Factors which are of great importance at such time are the intensification of the reciprocal coordination of the comprehensive programs within the confines of the long-term period being planned and within the five-year plan; the coordination of the basic indices of the comprehensive programs with the state assignments to be established in the five-year plans for the individual branches and economic regions. The development of the intercoordinated system of comprehensive programs makes it possible to gain a better balancing of the five-year plans, to intensify their organizing role in the planned and effective carrying out of the interbranch and interregional ties.

Frequently the increased importance of the programs is linked only with the intensification of the earmarked function of planning and with the more correct combination of branch and territorial development, but little is done to reveal their role in improving the balanced state of the plans. However, the tie between these aspects of improving planning is very close. For example, one cannot imagine the improvement of the balanced state of the five-year plan for 1981-1985 and the basic trends in the economic and social development to 1990 if there has been no working out or practical implementation, in the actual situation, of programs for the economic use of fuel, power, metal, and other material resources. The establishment in the five-year plan (with a distribution by individual years) of assignments for the average reduction of the norms for expenditure of the most important types of materials resources is, of course, of great importance in their economical use. However, these assignments should be based upon the practical implementation of the concrete organizational measures for the economizing of fuel, metal, and other resources, which are developed with the aid of the programs. In exactly the same manner for the efficient and economical use of labor resources, factors that will be of great importance are the development and implementation of a comprehensive program for the reduction of the use of manual labor. The program method makes it possible not only to achieve the better coordination in the long-range plans of the growing social needs and the means of assuring them, but also to determine effective ways to increase and use the necessary resources.

The new decree stipulates specific measures aimed at the broad application of the earmarked-program method of planning. USSR Gosplan must determine, with the participation of the interested administrative agencies, and must approve no later than one and a half years before the beginning of the next five-year plan, a list of the necessary programs and the procedure and deadlines for their development. Among the first-priority tasks for the immediate long-term period, it is planned to develop programs for the economizing of fuel and metal; for development of the BAM [Baykal-Amur Mainline] zone; for reducing the share of manual labor; and for increasing the production of new consumer goods. It is planned to expand the application of the program method in the planning of scientific-technical progress and the comprehensive use of natural resources. In this area a factor that will be of great importance is the intensification of the orientation of the

programs upon the final goals, the higher technical-economic results. A large amount of work will have to be done to improve the administration of the comprehensive programs and the methods of developing them.

The importance of the comprehensive programs consists not only in the more thorough and more complete substantiation in them of the planning assignments, but also in the organization of their fulfillment. By virtue of this fact, the system of inerbranch national-economic programs will be gradually supplemented by programs for the comprehensive development of the branches and regions of the country, as well as the major associations. In the programs for the resolution of the most important scientific-technical problems and the problems involving the comprehensive use of natural resources, provisions are made for ways to implement the results of the fundamental and applied research linked with the development and production of new types of raw and other materials, output, and progressive technology.

At the present-day stage of mature socialismm, there has been an increase in the role of the five-year plan in increasing the effectiveness of the economic levers and incentives. One can state without fear of exaggeration that the scientific substantiation, the reliable balancing, and the necessary stability of the plan for the Eleventh Five-Year Plan will, to a decisive degree, determine the successful application of all the economic levers and incentives stipulated in the decree. This pertains to the further development of cost accounting, the application of stable norms for the formation of funds for economic incentive, the expansion of the rights of the production associations (enterprises) in the use of the money in such funds and in the economizing with regard to the wage fund, and the new procedure of financing the scientific-research organizations, and other questions.

In economic literature, the vital questions of cost accounting are frequently viewed in isolation from the improvement of planning. In actuality, the plan and cost accounting are closely interrelated. An important means of raising the level of planning is the intensification of the role played by the contract, which is not only a tool for the fulfillment of the plan, but also one of the prerequisites for the development of the plan for production of output in the products list that corresponds to the needs of the national economy and the public. With the aid of economic contracts concluded for five years or for a longer period, one established stable ties between the supplier enterprises and the consumer enterprises, which ties are of great importance in the prompt satisfying of the needs of society and in improving the quality of the articles produced.

An important question is the guaranteeing of the stability of the norms for the formation of economic-incentive funds. This question can be successfully resolved only on the basis of solid assignments in the five-year plan which have been approved for the corresponding years of the five-year plan. For the development of the economic initiative of the labor collectives and the expansion of the rights of the production associations (enterprises), the decree states, in the Eleventh Five-Year Plan it will be

necessary to change over to the formation of the material-incentives fund, the fund for social-cultural measures and housing construction, and the fund for the development of production according to stable norms that are approved in differentiated sizes by years of the five-year plan. With a consideration of this fact, in the five-year plan (with a breakdown by years) there must be a well-substantiated establishment of the assignments for the increase in labor productivity, the production of output of the highest category of quality and profit, which play an absolutely fundamental role when determining the size of the incentive funds and the stable norms. Of no less importance are the assignments in the five-year plan for production, labor productivity, and other indices and norms with regard to the application of the various kinds of additional payment for labor which have been stipulated by the decree, for purposes of encouraging the increase in the quality of labor and its productivity. The only way of intensifiying the dependence on the wages of each individual worker and the labor collective upon the increase in labor productivity and the improvement of the final results of the work performed by the production associations (enterprises) is on the basis of increasing the quality and role of the five-year plans in the economic mechanism, as well as by applying long-term wage norms per ruble of output (and, in individual branches, a wage fund approved for the five-year period). This is attested to by the practice of introducing the Shchekino experiment.

Thus, the five-year plan serves as the organizational-economic basis for the further development of cost accounting and increasing the effectiveness of the economic levers and incentives. Thanks to this fact, there are created a number of advantages as compared with the functioning of the mechanism of administration on the basis of the annual plan. In instances when a considerable amount of the incentive funds are linked with the overfulfillment of the annual plan or the quarterly plans, and the wage fund depends upon the increase in the number of workers and the growth rates for labor productivity which are approved in the annual plans, the production associations (enterprises) are insufficiently self-interested in the maximum consideration in the plans of the intraeconomic reserves and capabilities for increasing the effectiveness of production, in increasing the output of production with a smaller number of workers. The enterprises and associations do not have any assurance concerning which means for paying for the labor and for providing incentives for the workers they will have at their disposal in subsequent years if there is a reduction in the number of workers. With a consideration of these peculiarities in recent years there has been a gradual expansion of the practice of planning the wage fund on the basis of norms per ruble of output, which are established on the basis of the assignments in the five-year plan for increase in production and labor productivity. The saving in the wage fund that results from the production of output with a smaller number of workers is used to encourage the increase in labor productivity, in the form of various additional payments and pay differentials, thus making it possible to increase the average wages paid to enterprise workers. By means of the new decision, this procedure has been introduced as a system of paying for labor which is intended to encourage higher growth rates for

labor productivity and also to encourage the permament assignment of personnel. Special attention at such time is devoted to encouraging the improvement of the quality of labor and to raising the proficiency level of the workers.

With the further improvement of five-year planning, the development of cost accounting, and the introduction of stable norms (which have been differentiated by years of the five-year plan), is closely linked the broader application in the branches of the economy of such progressive forms of payment for labor as the method of payment by the job; payment by the job, plus bonus; payment on the basis of a brigade contract; payment of labor according to a single production order for the final product; pay differentials based on high level of skill, quality and effectiveness of labor; etc. The introduction of these and other progressive forms of payment of labor on the basis of raising the level of long-range planning will intensify the importance of the basic wages in improving the quality of the work and in intensifying the increase in labor productivity.

The raising of the level of five-year planning, by creating the necessary conditions for expanding the long-term economic ties and five-year contracts, thus is supposed to play an important role in intensifying the effect exerted by the consumers upon the quality and variety of the articles being produced. And, as is well known, this is a very important trend in improving the entire economic mechanism.

The measures stipulated by the decree for expanding the variety and improving the consumer properties of the output being manufactured cannot be resolved unilaterally, with only a consideration of the interests of the enterprises that are supplying the output, although this practice does occur and is detrimental to the specific consumers and to the national economy as a whole. In the decisions issued by the party and the government it has been repeatedly indicated that, in order to increase the role of the consumers it is necessary to increase the importance of the economic contract, and to put the economic encouragement of the supplier enterprises into direct dependence upon their fulfillment of the pledges for shipments of output to the consumers in the specific products list in conformity with the contracts that have been concluded. Beginning in 1978, the degree of fulfillment of the economic contracts for shipments of output has been taken into consideration when evaluating the results of the work performed by the industrial enterprises and in the material-incentives system. The decree goes further in this regard and stipulates the intensification of the reciprocal pledges for shipments of output, and elevates the index of shipments of output in specific products lists on the basis of concluded contracts to the rank of the basic criterion for evaluating the results of the activities of the production associations and enterprises.

It is sometimes assumed that the establishment of contract discipline is not yet a reliable guarantee for the prompt delivery to the consumers of those

articles that they need. The suppliers will presumably be able to refrain from the concluding of contracts. These instances can occur if one does not simultaneously improve the planning and cost accounting. The development and reinforcement of cost accounting on the basis of the five-year plan will increase the self-interestedness of the enterprises in developing intensified planned assignments and in the prompt fulfillment of the pledges to the consumers. However, in this regard there arise new problems which will have to be resolved in the light of the decree that has been adopted. One of them consists in intensifying the dependence between the effectiveness of the work performed by the enterprises, associations, and ministries, their fulfillment of their pledges to the consumers and to the state budget, and the extent of the resources to be left at their disposal for the development of production and the providing of material incentives for the workers. For these purposes, provision is made for the introduction of a normative procedure for the distribution of profit on the basis of the assignments in the five-year plan. This procedure, as has been confirmed by experiments which have been carried out, intensifies the economic responsibility borne by the ministries for the fulfillment of the assignments in the five-year plan and the final results of the work performed by the branch as a whole. There is also a considerable increase in the role played by credit in the financing of capital investments. In this instance there is an increase in the economic responsibility for the effective use of the resources in construction, as borne by the customers and by the contractors.

The measures set down by the indicated decree of the CPSU Central Committee and the USSR Council of Ministers for raising the level of scientific substantiation and balancing of the five-year plans, for intensifying their role in the planning of the national economy and the activity of every enterprise, constitute one of the key questions at the new stage in the improvement of the economic mechanism. Its successful solution will, to a large extent, determine the intensification of the effect exerted by the entire economic mechanism upon raising the effectiveness of production and the quality of work. This places a large amount of responsibility upon USSR Gosplan, the planning agencies of the union republics, the ministries and the departments for improving the procedure of developing, scientifically substantiating, and balancing the draft version of the plan for the economic and social development for 1981-1985. More attention must be paid to the organization of work to prepare draft versions of the five-year plans at the production associations and enterprises so as to assure the more complete implementation, starting with the Eleventh Five-Year Plan, of the new demands made upon planning, and to guarantee the more correct combination of measures for improving the system and methods of state planning with the development of the economic initiative of the labor collectives. This will assure the further development of the democratic principles in planning and will create more favorable conditions for the reinforcement of cost accounting and for the intensification of the role played by the economic levers and incentives in improving the final national-economic results of the activity of every production association (enterprise).

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PROPOSALS TO FURTHER INTEGRATE SCIENCE, TECHNOLOGY DESCRIBED

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[Article by K. Taksir: "Economic Bases for the Unification of Science and Production"]

[Text] Carrying out the task of organically linking the achievements of the scientific and technical revolution with the advantages of the socialist economic system to a decisive degree depends upon the optimum functioning and development of science and production. This also depends upon the most rational organization between them of the forms of ties contributing to the rapid development of the most recent scientific and technical achievements with the greatest socioeconomic impact. The unification of science with production is achieved by the systematic elaboration and implementation of a range of measures to concentrate forces and reserves in the most important areas of scientific and technical progress,[1] with the maximum shortening of the "research--production" cycle, and an acceleration of the realization of scientific and technical developments aimed at raising the productivity of social labor.

The recently approved Decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Impact of the Economic Mechanism on Increasing Production Efficiency and Work Quality" outlined important directions for raising the level of planning work in the national economy, for developing economic accountability and strengthening the role of economic levers and incentives. The outlined measures will help to further improve the economic bases for linking science and production.

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[1]The expenditures on science in our nation have risen from 0.3 billion rubles in 1940 up to 19.3 billion rubles in 1978. The USSR has over 1.3 million scientific workers, or one-quarter of all the scientific workers in the world.

A particular feature of the present scientific and technical revolution is the unity and interrelation of science, technology and material production. This particular feature ensures a greater impact of the scientific and technical revolution on the development and qualitative transformation of the productive forces of society, and an acceleration of scientific and technical progress; it is a decisive factor for turning science into a direct productive force. "At present we can obviously say," noted L. I. Brezhnev, "that science has already in fact become a direct productive force, and a productive force the importance of which grows day by day."[2]

The turning of science into a direct productive force is one of the conditions for the systematic and rapid growth of production efficiency. This is carried out in a socialist society by the all-round use of the action of the economic laws of socialism, and above all the basic economic law, the law of the planned, proportional development of the national economy, and others. The use of the action of the basic economic law of socialism makes it possible to objectively assess the measures of uniting science with production. The law of planned, proportional development of the national economy helps to create conditions for achieving a strong bond between production and science. The national economic plan is a specific instrument in achieving this integration.

The advantage of uniting science with production under socialism consists in the fact that it creates the conditions for carrying out a unified statewide scientific-technical, economic and social policy. An acceleration in the process of integrating science and production is a direct consequence of the building of a developed socialist society in our nation. This process will grow ever stronger, for the shaping of the material and technical base of communism is related to realizing the most recent scientific and technical achievements and to further improving of production relations. In noting the great significance of the process of the integration of science and production, L. I. Brezhnev emphasized that "if we want to move forward successfully, and we, as a country, building communism should constantly move forward, then truly revolutionary measures must be taken and a strong, stable fusion of science and production must be created."[3]

The integration of science and production in the USSR has become an object of state control, and is carried out on a basis of the planned organization and centralized management of scientific and technical progress. A unification is occurring in scientific-technical and economic planning. This makes it possible on a broad scale to concentrate the scientific forces and the material and financial resources in the decisive areas, and to combine the

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[2]L. I. Brezhnev, "Leninskim Kursom. Rechi i Stat'i" [By the Leninist Course. Speeches and Articles], Vol 4, Politizdat, 1974, p 218.

[3]L. I. Brezhnev, op. cit., Vol 4, p 218.

development of the new and progressive sectors of industry and agriculture with a rise in the scientific intensiveness of all social production. Ever wider use is being made of the principle of the completeness of the production cycle from scientific research to the materialization of the scientific idea and the mass output of a new product. The relationships are being deepened between the individual phases of the scientific production cycle with a rise in the role and significance of the phase of development and the dissemination of the innovations. The number of inventions and rationalization proposals used in production was 4 million in 1978, and increased by almost 20-fold in comparison with 1940, while the total savings from their use calculated per annum was more than 60-fold.

Under the conditions of the present-day scientific and technical revolution, the role of fundamental research has risen immeasurably. This has been pointed out at the 25th CPSU Congress and in a series of subsequent decrees of the CPSU Central Committee on the development of academy science. About 12-13 percent of the scientific allocations are spent in our nation on conducting fundamental research. Many major scientific ideas of the academy scientific research institutes have opened up broad prospects in the development of industrial and agricultural production, and have led to fundamental changes in equipment and production methods. They have provided the broad use of new sources of energy, the development of laser engineering, the development of new structural materials with preset properties, the successful development of space, and many other achievements. A rise in the role of fundamental science and the strengthening of its effect on the transformation of all the material elements of the productive forces, and a rise in its interaction with production have become a particular features of the present stage in the development of the socialist economy. "An outlet into the sector" is the basic strategy for the scientific research institutes of the USSR and Union republic academies of sciences. Experience indicates that the effectiveness of academy science grows immeasurably where there is a link with production, with the sectorial scientific research institutes and design bureaus, and where this link is continuously strengthened.

The institutes of the USSR and Union republic academies of sciences have carried out a great amount of work on comprehensive scientific and technical programs in the interests of the associations and large enterprises of the nation. This form of organization which arose in 1976 upon the initiative of the Ukrainian Academy of Sciences and the ZIL [Automotive Plant imeni Likhachev] Association was embodied in 18 programs aimed at improving the technical level of production as a whole and encompassing all its most important areas. In 1976, in the institutions of the Ukrainian Academy of Sciences there were 26 sectorial laboratories of 15 Union ministries. Together with the ministries and departments, comprehensive plans for research and introduction are being worked out.

At present within the system of the USSR Academy of Sciences, a broad network of scientific and technical complexes is being organized, and these complexes consist of an institute, a design bureau, experimental production

and an experimental plant. In the Ukraine the nation's first academy scientific and technical association (ANTO) is being organized, and this is a scientific research design and engineering complex working under an integrated plan. This complex can carry out all stages of the "research--production" cycle. The Western Scientific Center of the Ukrainian Academy of Sciences has organized 12 special-purpose integrated associations for solving major scientific and technical problems. As a result the "research--production" cycle has been significantly shortened, and the efficiency of the developments has increased.

The Siberian Division of the USSR Academy of Sciences has acquired positive experience in developing ties between the academy scientific research institues and production. Upon its initiative, 10 large design bureaus and sectorial institutes are working as the connecting link between the academy institutes and the enterprises. The scientific research institutes and design bureaus are focused on solving problems posed for them by the academy institutes which have the job of carrying out the head role in individual areas of scientific research. They work under the direct leadership of the authors of exploratory research. Industry receives finished models with fully elaborated manufacturing methods and ready for series production. The establishing of a close tie between fundamental and applied research and industrial production makes it possible to significantly accelerate the "research--production" process.

The institutes of the Siberian division of the USSR Academy of Sciences are linked by program agreements with the Union ministries, as well as many departments and large industrial enterprises. A number of similar agreements has been concluded by the Ukrainian and Belorussian academies of sciences and the Urals Scientific Center of the USSR Academy of Sciences. For example, in accord with a general contract for the Tenth Five-Year Plan between the Urals Scientific Center and the USSR Ministry of Nonferrous Metallurgy, 26 developments and subjects have been planned involving 8 academy institutes and 25 sectorial institutes and enterprises.

Of particular significance is the formation and development of regional scientific and technical associations which are set up around the large scientific centers of the USSR Academy of Sciences and carry out large-scale programs of an intersectorial nature. The Novosibirsk Scientific Center is an example of such an association, and it organizes broad cooperation between the various institutes, the centralized development of an experimental base, centralized material and technical supply, and the extensive training of scientific and technical personnel. As a result the time and cost of scientific research and experimental designing have been significantly reduced, and the process of introducing scientific achievements into production has been accelerated.

In the Siberian Division of the USSR Academy of Sciences and in the Ukrainian and Belorussian academies of sciences, interdisciplinary brigades have been organized and these include scientists from the academy institutions and

specialists from the sectorial scientific research institutes and industrial enterprises for jointly conducting the entire work cycle, starting from the laboratory experiments and ending with the introduction of the obtained results in production. Twenty such brigades are working in the Catalysis Institute of the Siberian Division of the USSR Academy of Sciences alone. Their activities have significantly accelerated the development and industrial introduction of a series of new chemical engineering processes.

There have been significant advances in organizing various forms of ties between academy science and production. However, as yet the procedural and standard documents have not been worked out for compiling and carrying out the specific programs, considering their specific features, the character and scale of development and introduction, and the composition of executing organizations and enterprises. For this reason, in working out and implementing the comprehensive long-range scientific and technical problems, difficulties arise related to the methods and forms of financing these programs, organizing integrated planning for the entire "research--production" cycle, economic incentives for all participants in the development (including material incentives), methods of allocating the profit obtained as a result of introducing scientific and technical achievements, material and technical supply, the organizing of economic accountability relationships, the economic evaluation of program efficiency, and a number of others. Similar difficulties of a procedural and economic organizational nature arise in organizing the scientific research institutes and design bureaus under dual affiliation, and joint laboratories and departments.

At present the need has arisen of drawing up a statute governing the interdisciplinary brigades of scientists from the USSR Academy of Sciences, the sectorial scientific research institutes, the VUZes and enterprise employees for solving the most important scientific and technical problems. In our opinion, this document should define the tasks of the designated brigades, the procedure of their management, the planning and economic incentives for their activities, the rights and duties in the area of personnel, labor and wages, finances, credit, accounting and reporting. It is also essential to work out a statute governing the academy scientific and technical associations. This should be prepared considering the specific features in the development of academy science, a differentiated approach to creating various types of complexes, the normative documents used for the scientific production associations, and so forth.

The special problem scientific councils of the USSR Academy of Sciences play a major role in carrying out measures to strengthen the integration of science and production. Proceeding from the decision taken by the 25th CPSU Congress to increase the role of the USSR Academy of Sciences as the coordinator of all scientific work in the nation, it is advisable to work out and implement a system of measures which would carry out the designated function. For this it is essential, we assume, to broaden the rights of the scientific councils in the area of directing coordinating activities, financing programs, to involve them more in preparing the most important

scientific and technical decisions and proposals on specializing and reorganizing the network of scientific research institutions, and in shaping their areas of concern.

As the network of scientific councils of the USSR State Committee on Science and Technology [GKNT] as well as a number of other departments is developed, more and more often the work of the scientific councils of the USSR Academy of Sciences will be duplicated, and this reduces their role in coordinating all scientific work. In our opinion, it is essential to institute a precise procedure and ordered system for the functioning of the scientific councils. It is advisable that the Statute Governing the Special Problem Scientific Councils be approved not only by the Presidium of the USSR Academy of Sciences, but also by the USSR Gosplan and the GKNT. Such a procedure is caused by the fact that the state five-year plans for the most important research are approved by these same bodies.

The developing of the economic bases for the linking of science with production is aided by various forms of their interaction such as the integrated scientific research institutes, the scientific production associations [NPO], production associations, specialized associations for introducing new equipment, and scientific and technical complexes under the VUZes. The integrated institutes which consist of scientific research, design and engineering subdivisions and experimental production have developed in a number of industrial sectors. An example of this form of the tie between science and production would include the VNIIelektroprivod [All-Union Scientific Research and Design Institute for Automated Electric Drives in Industry, Agriculture and Transportation], the High Frequency Current Institute imeni V. P. Vologdin, the Electric Welding Institute imeni Ye. O. Paton of the Ukrainian Academy of Sciences, and many other institutes.

Among the most effective forms helping to establish firm economic bases for the uniting of science with production, we must mention the production and scientific-production associations. In our nation around 4,000 such economic formations have been organized. Over 10,000 previously independent factories and plants have been incorporated in them with the rights of shops and affiliates. By the end of the Tenth Five-Year Plan, work must be completed on organizing the production associations. At present they encompass virtually all coal mining, more than 90 percent of motor vehicle output, 75-80 percent of tractors and grain-harvesting combines, a large portion of the production of electrical equipment, looms, furniture and consumer goods.

Of decisive significance is an improvement at the associations of planning practices for scientific and technical progress, and one of the basic tasks here is the introduction of new equipment. The designing of equipment, the manufacturing of experimental models and the series production of them must be determined according to a single plan. The scientific workers and designers as well as the production specialists and workers should be equally interested in carrying out this plan.

Proceeding from the view of the "research--production" cycle as a single system, it is obviously essential to legislate the elaboration of comprehensive technical development plans which would encompass all stages of this cycle, and the entire range of work carried out to create new equipment and production methods from the start of scientific research to the full incorporation of its results in production. For this the associations must organize unified services for comprehensive planning and management of scientific the technical progress. These would coordinate the work of all the technical subdivisions of the associations and outside organizations serving them in the given area and guaranteeing the observance of the responsibility of all executors for coordinating the plans for the introduction of new equipment with the plan quotas for increasing production efficiency.

The economic activities of the production associations, as one of the effective forms of the integration of science with production, is aimed at the end results. Their plans should provide for the newness and promise of the scientific and technical decisions to be carried out, as well as an intercoordinating of all the sections of the plans and the maximum utilization of internal resources. Of interest is the experience of the Ministry of Heavy Machine Building, the Ministry of Petroleum and Chemical Machine Building and others in the area of planning and evaluating the operations of the associations on the basis of normed net product. This indicator most fully meets the requirements made upon the measurements of the production volume and labor productivity. Net product better than other value indicators reflects the actual contribution of the association employees to creating national income, for it consists of the expenditures on wages and the produced surplus product (profit), and it does not include the value of the expended material means of production. The Decree "On Improving Planning and Strengthening the Effect of the Economic Mechanism on Raising Production Efficiency and Product Quality" provides for a changeover to the net product indicator as the corresponding sectors are prepared for this.

At the enterprises and production associations there is no uniformity in the structure and functions of the scientific and technical subdivisions. According to the data of the USSR TsSU [Central Statistical Administration], the average number of laboratories and design bureaus per enterprise is less than two. The number of employees in the subdivisions carrying out scientific research and experimental designing in a number of instances is small (five-six persons). At the same time, according to the estimates of specialists, the minimum size of a scientific group capable of successfully carrying out work in the stages of the "research--production" cycle, considering the range of measures of developing equipment and production methods and conducting testing, should be at least 15-20 persons. The technical and economic analysis carried out has disclosed a substantial scattering of scientists in the various services such as laboratories (central and shop), design bureaus, subdivisions of the department of the chief designer, and the experimental subdivisions.

The eliminating of small subdivisions by consolidating them will be an important area for strengthening the integration of science with production, and improving the organizational structure of the management of scientific and technical progress. At the enterprises more specialization of the subdivisions must be developed in carrying out the stages and elements of the "research--production" cycle. This can be aided by centralizing the management of all the scientific and technical subdivisions. Experience has shown that in a number of production associations where there is not a sufficient link between the research laboratories and the bureaus, there is no comprehensive solution to the questions of accelerating scientific and technical progress.

The increasingly complicated problems of further strengthening the integration of science with production require a change in the structure of the laboratories and bureaus, and the setting up on their basis of a qualitatively new subdivision which is under one leadership. In our view, a scientific and technical center could become such a subdivision. The necessity of organizing it has arisen at many large production complexes which include research, design, engineering and experimental organizations. Such centers will make it possible to bring about a further improvement in the management of scientific and technical progress, since responsibility will be concentrated at them for the technical and technological level of production. Obviously they must be granted the corresponding rights and functions in the area of scientific and technical progress in regards all the association subdivisions. The scientific and technical centers on the primary management level should head the work of planning the creation and introduction of new equipment, the accelerating of the "research--production" cycle, and improving the quality and durability of the product turned out by the association. All of this will help to shorten the duration of the scientific-production cycle.

In certain large associations where the corresponding types of finished products are produced at specialized production units (shops) with a complete product cycle, it is advisable to organize scientific-production complexes (NPK) consisting of scientific subdivisions and production shops. The complex should have a single leadership, single services, and be responsible to the association for the high quality and prompt fulfillment of the development plan and equally for carrying out the production planning quotas. The NPK should be specialized along product lines, and bear responsibility for the future development of their areas of technology. The Leningrad associations of Svetlana, Izhorskiy Zavod and Burevestnik have acquired experience in setting up the NPK within their structure.

The system for the management of scientific and technical progress in large economic complexes should be focused on the socioeconomic efficiency as the determining and solidifying principle for all aspects of comprehensive management, at the consistent realization of a unified scientific and technical policy, at the greatest possible rise in the quality indicators of both the new equipment as well as the employed equipment, machinery and instruments, and on the broad spread of program-targeted planning.

The decade of experience of the scientific-production associations (NPO) has shown their high efficiency. The organizing of the NPO provides for the shaping of an entire integrated system the elements of which are connected and interact for the purposes of accelerating the production development of scientific and technical achievements. Here the gap is eliminated in the "research--production" cycle, there is the concentration of the necessary material, financial and labor resources, as well as the most rational utilization of the personnel in the most important areas of scientific and technical development. As an average the length of the "research--production" cycle has been reduced by 1.5-2-fold. This has been achieved by the parallel execution of individual stages of the process of developing new equipment, by the joint execution of the work by all participants in the cycle, and by stage-by-stage control over the course of development. Calculations indicate that by reducing the "research--production" cycle at the Okhtinskiy Plastpolimer [Plastics and Polymer] NPO, the national economy during the Ninth Five-Year Plan and the 3 years of the Tenth Five-Year Plan has received over 400 million rubles in additional new product. At the Soyuzavtomatstrom [?All-Union Construction Automation] NPO, with a 2.8-fold rise in the amount of scientific research, the effect has risen by more than 7-fold.

The achievements of the NPO have been significant in developing and creating fundamentally new patentable equipment which surpasses the world and Soviet models and is competitive on the world market. For example, the Plastpolimer NPO has developed a new production process for producing high-pressure polyethylene. The Polimir-50 unit which has been designed by Soviet specialists and the GDR is successfully operating at the Novopolotsk Combine and has affirmed the high reliability of the production system, the equipment and control systems. The Soyuzavtomatstrom NPO has develoepd automatic production complexes equipped with new highly productive equipment. The savings of capital investments on each production line of a cement plant is 100,000 rubles. It must be pointed out that due to the presence of all the elements of the "research--production" cycle at the NPO, the problems of developing control systems for the designated complexes are solved in the very design stage. This eliminates the unnecessary elements in the production process and in management.

The NPO successfully carry out the functions of the scientific and technical centers of the industrial or agricultural sectors (subsectors). Within them sectorial services have been developed for scientific and technical and economic background studies, patent and licensing work, the scientific organization of labor, the training of scientific personnel, standardization, the forecasting and study of demand for the product to be produced, the elaboration of material and labor standards, and the installation and adjustment of new equipment. The NPO are organizing services for the scientific servicing of the sector enterprises and organizations. The ministries and departments have entrusted to the NPO the functions of forming the areas of scientific and technical development over the long run in accord with the specializing of their production, as well as the elaboration of

technical and economic requirements for the corresponding articles and production processes the use of which will accelerate scientific and technical progress in the national economy. The NPO coordinate scientific research and experimental design development carried out by the scientific organizations, the enterprises and associations of the sector.

However, in a number of instances the advantages created by the NPO in accelerating scientific and technical progress are not used as a consequence of shortcomings in their leadership, in planning, financing and encouraging their activities. A majority of ministries has maintained the previous planning procedure for the structural units incorporated in the NPO, the planning of science and production is carried out separately, and the plan indicators are given piecemeal to the NPO. A number of the all-Union industrial associations of the Ministry of Chemical Industry (Soyuzreaktiv [?All-Union Chemical Agents]), the Ministry of the Electronics and Electrical Engineering Industry (Soyuzelektroistochnik [?All-Union Electrical Source]) and others violate the rights of the general directors of their subordinate NPO, in establishing the plan quotas for each structural unit.

A number of the NPO lack five-year plans for developing new equipment. Material and technical supply and financing are planned only for an annual breakdown. This leads to a situation where the solving of long-range problems is not provided with financial and material support. In a number of instances there has been a lack of coordination in planning the development of new production processes and capital investments for building new production to produce them. For example, in 1973, the Plastpolimer NPO developed a process for producing high density polytehylene by the liquid phase method in a unit of 40,000 tons with active catalysts. In 1975, the technical plans were completed and approved, however in 1967, due to the lack of capital investments, a decision was taken to abandon the construction of the designated production at the Kuybyshev Synthetic Alcohol Plant.

The ministries and departments are not taking measures to provide the necessary proportions at the NPO between scientific potential and production facilities. Thus, at the Spetstekhosnastka [Special Technical Fittings] NPO, the capability of carrying out scientific research surpasses the potential of the production facilities by more than 3-fold. As a result, the new designs developed in recent years at the NPO for high-speed fittings (face chucks, machine tool attachments using permanent magnets, and so forth) were not turned over for production, and hence for subsequent introduction at the enterprises of the sector. Obviously it would be advisable to isolate the amount of experimental work from the total amount of commodity and salable product. It is also essential to give the ministries the right to permit the general directors of the NPO to establish indicators below the association (sector) average for experimental production (with sound calculations or standards for the development of models of new equipment), without altering the indicators for the sector.

Particular attention should be given to developing specialized associations to introduce new equipment. As yet there are few such complexes, and a majority of them are small and possess insufficient potential. In our view, it is essential to develop a standard statute on specialized associations for the introduction of new equipment, having pointed out that they are self-financing organizations which have the right of a legal entity and carry out their operations on the basis of direct economic contracts. In setting the indicators for planning, financing and evaluating the operations of the specialized associations involved in introducing the new equipment, as the basic ones one must provide the following: The volume of contractual work in providing all types of aid to the enterprises (associations) in introducing the new equipment; the quantity of work fully introduced in production for the planned period; the indicators of economic effectiveness for each introduced work; the total economic effect for all contractual work for the period being planned.

The changeover to the extensive development of a network of specialized associations involved in introducing new equipment will, in essence, mark a transition from the direct-labor to the contract method of implementing the achievements of scientific and technical progress. This will create great opportunities for accelerating it. The designated complexes will make it possible to establish an effective and efficient form of tie between science and production, in minimizing the number of organizational relationships in the process of carrying out the specific measures. They can become a reliable means for implementing a uniform technical policy in the sector.

The scientific and technical complexes under the VUZes which would include, in addition to research subdivisions, also other elements of the "research--production" cycle (design, experimental organizations and so forth) represent an effective form of the link between science and production. The Leningrad Polytechnical Institute imeni M. I. Kalinin, the Taganrog Radio Engineering Institute and others are an example of such a form of link between science and production.

A scientific potential showing the capability of a chair or laboratory to solve specific problems should be the basic criterion of the readiness of a VUZ to carry out research. For improving the organization of the planning and financing of scientific research, obviously it would be advisable to set up a coordination center under the USSR Ministry of Higher and Specialized Secondary Education, and this would function in close contact with the regional scientific procedural councils for the sectors of science and technology. In the large economic centers it is essential to organize specialized associations for the production and technical servicing of the VUZes, and these would include experimental production, design and production units and support services. It is economically advisable to expand the experimental facilities of the VUZes directly at industrial enterprises by setting up experimental shops, support sections and research centers.

A self-financing scientific association under the RSFSR Ministry of Higher and Specialized Secondary Education would help to increase the effectiveness of VUZ research and development. This could be organized on the basis of the Main Administration for Scientific Research, the scientific subdivisions of the 66 VUZes, the Scientific research Radio Physics Institute, the 9 experimental design bureaus and 29 experimental production shops. The organizing of new higher school centers in a number of regions of the nation as well as the strengthening of the ties of the schools with the academy and sectorial scientific research institutes can help to increase the volume and improve the quality of the research conducted at the school institutes. In the next few years measures must be taken to more widely involve the scientific personnel of the higher school in conducting major integrated research in accord with the state plans for the development of science and technology and the work programs for solving the basic scientific-technical and socioeconomic problems.

The further and effective development of the process of unifying science with production is possible under the condition of creating sound economic bases for such integration. The economic mechanism of linking science with production is undergoing great changes brought about by the transformations in national economic management and in the development of science. Of great significance for improving the economic bases of the integration of science and production is the Decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Effect of the Economic Mechanism on Raising Production Efficiency and Work Quality" and which provides a complete program for increasing production efficiency on the basis of accelerating scientific and technical progress.

Of great significance are the elaboration and implementation of a group of measures to improve planning and economic incentives. These should turn the scientific and technical development plans into an organic part of the development plans of the national economy, the sectors, associations and enterprises. A changeover is being carried out to unified across-the-board planning for the "research--production" cycle, and to uniform planning documents which describe the scope, quality, and efficiency of the end results of the work done by all the elements of the cycle, their coordinating and synchronizing.

On the higher level, across-the-board planning of the "research--production" cycle is based upon the converting of the industrial ministries to a new system of planning, financing and economic incentive for work on new equipment. This system is based on the planning of scientific and technical development using schedule orders which determine the end results of the work, including the national economic effect, the executors, the dates of completing the given work in all stages from the scientific research to the introduction of its results into production, the necessary resources, and the sources of financing and material incentives. Experience in across-the-board planning of scientific and technical progress has been acquired in the electrical engineering industry, in heavy and transport machine building, and

in a number of other sectors. An important component in the designated system is also the creation within the industrial ministries of a single scientific and technical development fund which would be earmarked for financing scientific research and expenditures on the development and introduction of new equipment.

Strengthening the integration of science and production depends upon long-range planning, the role of which has immeasurably risen under present-day conditions. The five-year scientific and technical development plans should be based on work programs and quotas encompassing the entire cycle of creating, developing and introducing into production new types of products and production processes. Here using the methods of program-targeted planning, it is essential to work out the appropriate models with the mathematical support, the rates and standards for evaluating the efficiency and quality of the work being carried out on the entire cycle.

To a significant degree a rise in the efficiency of social production depends upon the coordinating of capital investment planning with the scientific and technical development plans. For the purposes of the more rational utilization of capital investments, for solving the most important problems of scientific and technical progress, it is advisable to incorporate in the five-year plan a unified section "Planning Scientific and Technical Progress and Capital Investments." Obviously, it should bring together the sections which would be involved in implementing the planning of scientific and technical development, modernization and reconstruction, and the completion of production capacity, installations and fixed capital projects.

Of important significance for the further strengthening of the tie between science and production is the gradual transition of the sectorial scientific research, design and engineering organizations from advances and payment for partial completion to a system of payment for work that has been fully completed and accepted by the client. This changeover has been stipulated in the Decree of the CPSU Central Committee and USSR Council of Ministers "On Improving Planning and Strengthening the Effect of the Economic Mechanism on Raising Production Efficiency and Work Quality."

For this it has been planned that the expenditures of the designated organizations up to the planned date for the delivery of the work are to be covered by a bank credit within the limits of the funds released by the clients with the changeover to settlement without intermediate payments. In exceeding the plan dates for completing the work, the issuing of the credit is extended with the charging of increased interest for the use of the loan. An important economic measure which provides for a greater incentive of the associations and enterprises to introduce new equipment is compensation from the unified scientific and technical development fund paid to the production collectives for profit losses caused by a decline in the sales volume during the period of introducing the new equipment.

The decree provides for the formation of a material incentive fund, a fund for sociocultural measures and housing construction and an organizational development fund in the scientific research, design and engineering organizations. A strengthening of the economic bases for uniting science with production will be aided by the bonuses planned in the decree for the workers of the scientific production and production associations (enterprises), scientific research institutes, design bureaus and engineering organizations for the development and introduction of new equipment depending upon the total economic effect obtained in the national economy from the utilization of the scientific and technical achievements.

In our view, it is essential to provide for a greater incentive for the development and production of fundamentally new patentable equipment which surpasses the world and Soviet models and is competitive on the world market. Obviously the leaders of the associations and enterprises must be given the right to turn over a portion of the funds earmarked for incentives for the creation, development and introduction of new equipment to other enterprises and organizations (regardless of their departmental affiliation) to pay bonuses to employees who participated directly in carrying out the designated work.

Scientific and technical progress is becoming an object of scientific management which integrates the spheres of science, technology and production. All of this requires the greatest possible improvement in its management, consideration and solution of diverse problems of a social, economic and organizational nature. Precisely management should provide optimum materialization of scientific ideas. The economic measures to strengthen the integration of science and production can be effective when the organizational conditions corresponding to their realization will be created. The scientific and technical revolution leads to the development of certain new structural forms of management. As was pointed out above, the scientific research and design organizations in structural terms are being ever more closely integrated with the management elements. Their proportional amount in the management mechanism is growing significantly. The very creation of production and scientific-production associations and their forms of organization require adequate expression in management, and it should adapt the reserves to the conditions of the occurring integration process. For this reason its organizational structure should provide for the integration of science and production, and on this basis their intensification.

At present the necessity has arisen of conducting research to establish the creation of various forms of contact between science and production in industry and agriculture, to disclose their features inherent to the corresponding sectors and subsectors, considering the particular features of the latter, to optimize their role in managing scientific and technical progress, achieving mobility, flexibility, the capacity to reorganize organizational ties, to carry out specific programs and concrete tasks in creating and introducing new equipment. The further development of the forms inherent to socialism for the tie between science and production will make it possible to achieve even higher rates for an increase in the efficiency of social production.

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CONFERENCE IN TADZHIK SSR ON INCREASING PRODUCTION EFFICIENCY

Moscow VOPROSY EKONOMIKI in Russian No 10, Oct 79 pp 154-155

[Article by S. Belova: "Proportions and an Increase in the Efficiency of Public Production"]

[Text] The Institutes of Economics of the USSR Academy of Sciences and of the Tadzhik SSR Academy of Sciences held a coordinated conference at the end of March 1979 in Dushanbe on the problem of "Improvement of the Proportions of a Developed Socialist Economic System and Ways to Heighten the Efficiency and Intensification of Public Production," in the work of which representatives of the institutes of economics of the Ukraine, Lithuania, Uzbekistan, Kirgiziya and Azerbaijan and of higher educational institutions of Tadzhikistan took part. The conference was faced with the task of examining the results of work that has been completed on the problem, of familiarizing oneself with the course of research that has not yet been concluded, of concentrating attention on the most important aspects of it and of outlining paths for cooperation by scientific collectives. Three basic directions in research were discussed: the over-all problems of proportionality under conditions characterized by intensification, special regional features in the shaping of proportions for reproduction and the determination and measurement of the efficiency of reproduction throughout the country as a whole and in terms of individual regions.

A. Notkin (Institute of Economics of the USSR Academy of Sciences), corresponding member of the USSR Academy of Sciences, gave the opening address at the conference on the tasks of coordinating scientific work and a report on the balance of the national economy and on proportions in reproduction. Great work has been carried out in the Institute of Economics of the USSR Academy of Sciences on research into the proportionality of various subdivisions of public production and individual portions of the national product, in connection with which special attention has been paid to an analysis of the role of recovery of fixed capital. The basic stress is now being placed on an analysis of the degree of balance of the basic factors of public production—fixed and working capital and manpower—under conditions of intensification. The reporting speaker dwelt in detail on ways to achieve a degree of balance on the scale of the national economy and of individual regions (to begin with, on problems of

coordinating the planning of capital investments with the availability of natural resources and manpower and with the need to develop the infrastructure) and on ways to improve the balance of the national economy.

In his report, P. Bagriy (Institute of Economics of the Ukrainian SSR Academy of Sciences), academician of the Ukrainian SSR Academy of Sciences, earmarked the question of the proportionality of the basic factors of production in the investment complex and in existing production. In this connection, he touched on some questions of improving the economic mechanism and the structural policy of planning organs in order to ensure efficient and balanced growth.

Doctor of Economic Sciences V. Bogachev (Institute of Economics of the USSR Academy of Sciences), the theme of whose report was national wealth in the system of categories of socialist reproduction, did not restrict himself to a traditional examination of only the productive portion of wealth as a condition for economic activity. By considering national wealth in its productive and nonproductive portions also to be a most important result of production, on a level with the national product and national income, the reporting speaker pointed out the need to include data on increments in all portions of wealth in the system for evaluating efficiency and the need for a change in connection with this in evaluations of the reserves for heightening efficiency. In the report by Doctor of Economic Sciences Ya. Bronshteyn (Institute of Economics of the Tadzhik SSR Academy of Sciences) on the problems of the production infrastructure, the position that under present-day conditions a rise in the efficiency factor of the "transfer mechanism" (infrastructure) is no less important a task than an increase in the capacity of the "basic machine unit" (production) was substantiated. He viewed an improvement in the production infrastructure as a method to reduce losses in the national economy and a way to intensify production and to heighten its efficiency.

A number of reports by the staff members of the Institute of Economics of the USSR Academy of Sciences were devoted to the problems of the degree of balance in the individual factors of reproduction: Candidate of Economic Sciences V. Mayevskiy devoted his report to the prerequisites for proportionality in the reproduction of the means of labor, consumer items and manpower; Candidate of Economic Sciences Yu. Selivanov to the correlation of fixed and working capital in the process of economic growth. Candidate of Economic Sciences S. Belova to the process of formation at the stage of developed socialism of the ratio between accumulation and the reimbursement of the means of labor and of the degree of balance in the natural-physical and value ratios in the reproduction of the means of labor. Individual aspects of the over-all problems of proportionality were also viewed in the reports by the following staff members of the Institute of Economics of the Ukrainian SSR Academy of Sciences: Candidate of Economic Sciences G. Palamarchuk (improvement of the proportions in an intersectorial complex based on the example of an agro-industrial complex) and Candidate of Economic Sciences V. Kononenko (the efficiency of produtive and nonproductive accumulation).

In discussing the regional aspect of the formation of proportions in reproduction and the problems of determining the efficiency of development of

regions, the participants in the conference viewed the Union republics as links in a single national economic complex, the USSR, and elucidated in detail the specific character of proportionality at the level of individual Union republics depending on particular features of the socio-economic, historic, natural-and-climatic and demographic factors and on the combination of the interests of the people as a whole and of local interests.

In the report on the shaping of proportions in reproduction in a region with a labor surplus, R. Rakhimov (Institute of Economics of the Tadzhik SSR Academy of Sciences), a corresponding member of the Tadzhik SSR Academy of Sciences, pointed out that the specific character of a republic makes for a predominance of labor-intensive and capital-intensive types of reproduction and makes its own adjustments in the indicators of regional efficiency. Another character of reproduction in a region provided with labor—the tendency toward the capital-economizing type of reproduction—was analyzed in a report on ratios of accumulation in Uzbekistan by Candidate of Economic Sciences P. Nasyrov, Candidate of Economic Sciences N. Chumanova and M. Tadzhimuratov (Institute of Economics of the Uzbek SSR Academy of Sciences). Doctor of Economic Sciences M. Allakhverdiyev (Institute of Economics of the Azerbaijan SSR Academy of Sciences) shed light on the special features of the reproductive process in Azerbaijan.

Much attention was paid to methodological aspects of the research on regional ratios of reproduction and, in connection with this, to the problems of improving planning at the level of the Union republic from the standpoints of over-all and program-special purpose planning.

The following questions were examined by staff members of the Institute of Economics of the Tadzhik SSR Academy of Sciences: Candidate of Economic Sciences Kh. Umarov examined the influence of over-all and specific socio-economic factors on the rates, ratios and structure of production in the region; Candidate of Economic Sciences R. Mirzoyev examined the methods for analysis of expanded reproduction in the republic and the system of indicators of its efficiency; Candidate of Economic Sciences A. Samadov examined the problems of calculating the national income produced in the republic; meanwhile, Candidate of Economic Sciences T. Koychuyev (Institute of Economics of the Kirgiz SSR Academy of Sciences) examined the combining of extensive and intensive factors in the development of a region; Candidate of Economic Sciences A. Khakimov (Tashkent State University imeni V. I. Lenin) examined the calculation of specific features of reproduction in a region during planning; while Doctor of Economic Sciences T. Mir-Akilov (Tashkent Agricultural Institute) examined cost accounting and the improvement of the regional proportions of reproduction.

Many participants in the discussion touched with one degree or another of completeness on the question of determining the efficiency of reproduction as a whole and in individual regions. This question was specially considered in an interesting, but debatable report by Doctor of Economic Sciences L. Satunovskiy (Institute of Economics of the Lithuanian SSR Academy of Sciences), who proposed the following indicator of efficiency—the ratio of the results of production (output) to production resources or factors of production (manpower and productive capital).

A. Notkin, a corresponding member of the USSR Academy of Sciences, summed up the results of the discussion in his concluding speech; he noted the high theoretical level of the reports and addresses in the debates, novelty in the statement of individual problems and the great practical importance of a number of the questions discussed. A more profound effort to work out these problems must be at the center of attention of economists during the next few years. One has in mind, to begin with, the problem of overcoming the inadequate degree of coordination of the comparatively high rates of growth of fixed productive capital with the process of freeing manpower, which is particularly urgent for the 11th and 12th five-year plans. In reorganizing the structure of national wealth in light of present-day tendencies in the formation of the consumption fund, it is also necessary to take into account the tasks of reorganizing it from the point of view of the requirements of production and of the scientific-technical revolution. Also deserving of further development is the question of the correlation of the norms for reimbursement of and saving on the means of labor. The question raised at the conference of the efficiency of development of the production infrastructure is gaining in interest in connection with changes in the model for the distribution of productive forces, changes which are occurring at the present time and will occur in the future. Also important is the problem of improving the proportions of intersectorial complexes (the classification of complexes, their mutually interwoven nature and the place and role of machine building in these complexes). There is no question that work must be continued on determining and measuring the economic efficiency of social reproduction at various levels. A. Notkin gave a high assessment of the achievements of scholars from the Union republics in working out a theory on the special features of proportionality in development in its regional aspect.

The conference in Dushanbe gave evidence to the advisability of further coordination of scientific work on the problems of reproduction, whose plan the Institute of Economics of the USSR Academy of Sciences was entrusted with drawing up. The publication of the most interesting reports presented by the Union republics is contemplated in one of the monographs of the Institute of Economics of the USSR Academy of Sciences.

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SYMPOSIUM ON METHODS TO STIMULATE SCIENTIFIC AND TECHNICAL PROGRESS

Moscow VOPROSY EKONOMIKI in Russian No 10, Oct 79 pp 156-157

[Article by K. Kedrova: "Stimulating Scientific and Technical Progress"]

[Text] A symposium of scholars of the Institute of State and Law and Institute of Economics of the USSR Academy of Sciences on "Legal Forms and Methods for Providing Economic Incentives for Scientific and Technical Progress" was held in March 1979 in Moscow. There were 18 reports which were heard and in the discussion of which representatives from academic and sectorial scientific research institutes, ministries and the USSR Council of Ministers' State Committee for Science and Technology took part.

In opening the meeting, V. Laptev (Institute of State and Law of the USSR Academy of Sciences), chairman of the organizing committee and corresponding member of the USSR Academy of Sciences, expressed confidence in the fact that joint efforts by scholars of jurisprudence and economists on drafting effective forms for providing incentives for scientific and technical progress will be an effectual contribution to the cause of improving the mechanism of management of the socialist economy.

As the speeches by the reporting speakers and the exchange of opinions demonstrated, there exists a number of causes both of a legal, as well as of an economic nature, for holding back the rate of scientific and technical progress and impeding the effective realization in full measure of the vast scientific-technical potential and on this basis hindering a sharp rise in the efficiency of public production. Legislation in the area of providing economic incentives for scientific-technical progress arose at the end of the 1950's as an integral element in the system of state management of the development of science and technology. During the past years, the legal norms that secure the fixed status of the aggregate of economic relationships emerging upon the creation and assimilation in production of new technology have been repeatedly amended as changes have occurred in public production under the influence of the scientific and technical revolution.

The present-day stage of developed socialist relationships places a crucial task before the representatives of the legal and economic sciences: to take into account to the maximum extent possible the special features of development of the socialist economic system under conditions marked by the scientific-technical revolution and to reflect them in the economic-legal mechanism for the management of the national economy. In this connection, particular significance is being assumed by the problem of strengthening the legal mechanism that ensures the conduct of a unified state scientific and technical policy that is capable of neutralizing some of the negative features of departmental-sectorial isolation that not infrequently exert a negative influence on speeding up the widespread realization of highly-efficient inventions and scientific-technical achievements along the entire front of assimilation in production. In the opinion of the participants in the symposium, the time has come to adopt a law on a unified state scientific-technical policy, which will be a further development of Article 26 of the Constitution of the USSR, which consolidates over-all state management of the development of science and technology.

Measures and targets for the realization of comprehensive scientific-technical and production programs of work encompassing an entire cycle of creation, mastery by production and assimilation in production operations of new types of equipment and manufacturing processes must make up the foundation for plans for scientific and technical progress. The realization of the principle of unified beginning-to-end planning of the "research-production" cycle requires the drafting of a standardized basis for the transition to unified planning documents that describe the volumes, quality and efficiency of the end results of operations in all links of the "science-technology-production" system.

For closer coordination of the plans of basic production with the indicators of the plans for new technology, one must provide for specific quotas for enterprises of the ministries in the methods directives for drawing up the state plan for socio-economic development of the national economy, quotas expressed in terms of the products list of output of new equipment accompanied by a directive for the volume of work on setting up production of each kind of item on the products list and in terms of the dissemination of scientific and technical achievements in the sectors of the national economy.

In order to ensure a unified scientific-technical policy, the creation of an interdepartmental center for the management of the process of putting programs into effect and for drafting the economic and legal bases for the mechanism for administering them is of special significance in connection with the process of carrying out comprehensive scientific-technical and production programs of an intersectorial nature.

In order to finance a solution to such scientific-technical problems, it is necessary to create an over-all state fund for the development of science and technology, which is formed from funds from the budget, ministries and departments and is at the disposal of the aforementioned center or State Committee for Science and Technology.

The transition to standardized methods of stimulating scientific and technical progress requires an improvement in the economic foundations of the mechanism for the formation of special-purpose centralized funds to provide for the financing of the development of science and technology and its legal regulation. At the present time, profit is the only source for the formation of a unified fund for the development of science and technology.

The participants in the symposium adopted a decision: to ask the State Committee for Science and Technology and the USSR State Planning Committee about conducting an economic experiment in several ministries with the formation of a unified fund for the development of science and technology from profit according to differentiated norms that provide for the strengthening of the incentive provided for an enterprise depending on its contribution to scientific-technical progress.

In order to ensure a stable link between science and production, it is necessary to regulate the legislation on providing economic incentives for the development of science and technology by means of creating generalizing standardized acts, after providing in them for a procedure for the inclusion of a special section on providing economic incentives in economic contracts on conducting scientific-technical work. One must disseminate among sectorial scientific research institutes, as well as among academic institutions that are conducting work on the basis of economic contracts, knowledge of the rights to economic incentives by virtue of funds allocated to the client from centralized funds.

The participants in the symposium adopted proposals on heightening the responsibility of clients for the transfer to performing organizations of data necessary for the calculation of the economic impact.

An improvement in the legal regulation of the organizational-economic ties of science with production requires a further working out of the statute on forms of interaction by institutes of a general scientific profile with sectorial organs for the administration of science and production, with institutes of an applied sciences profile and with production enterprises (associations) and of an agreement on long-term creative collaboration among scientific organizations and academic and sectorial organizations and between institutes of a diverse profile and enterprises.

A decision was reached on the further expansion of the study of the experience of socialist countries in the area of economics and legal regulation of scientific and technical progress and of the positive experience of the leading capitalist countries in the area of state management of research and draftings.

It was noted at the symposium that during recent years great work has been carried out on improving individual legal forms and methods for providing economic incentives for scientific and technical progress. The qualitative and quantitative growth of scientific-technical achievements requires a further improvement in the entire system for providing economic incentives and for

legal regulation of scientific-technical progress. Under these conditions, the conduct of joint research by economists and scholars of jurisprudence is assuming ever greater significance.

Recommendations were adopted at the symposium which were directed to the bureau of the Section for Social Sciences of the Presidium of the USSR Academy of Sciences and to the State Committee for Science and Technology.

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